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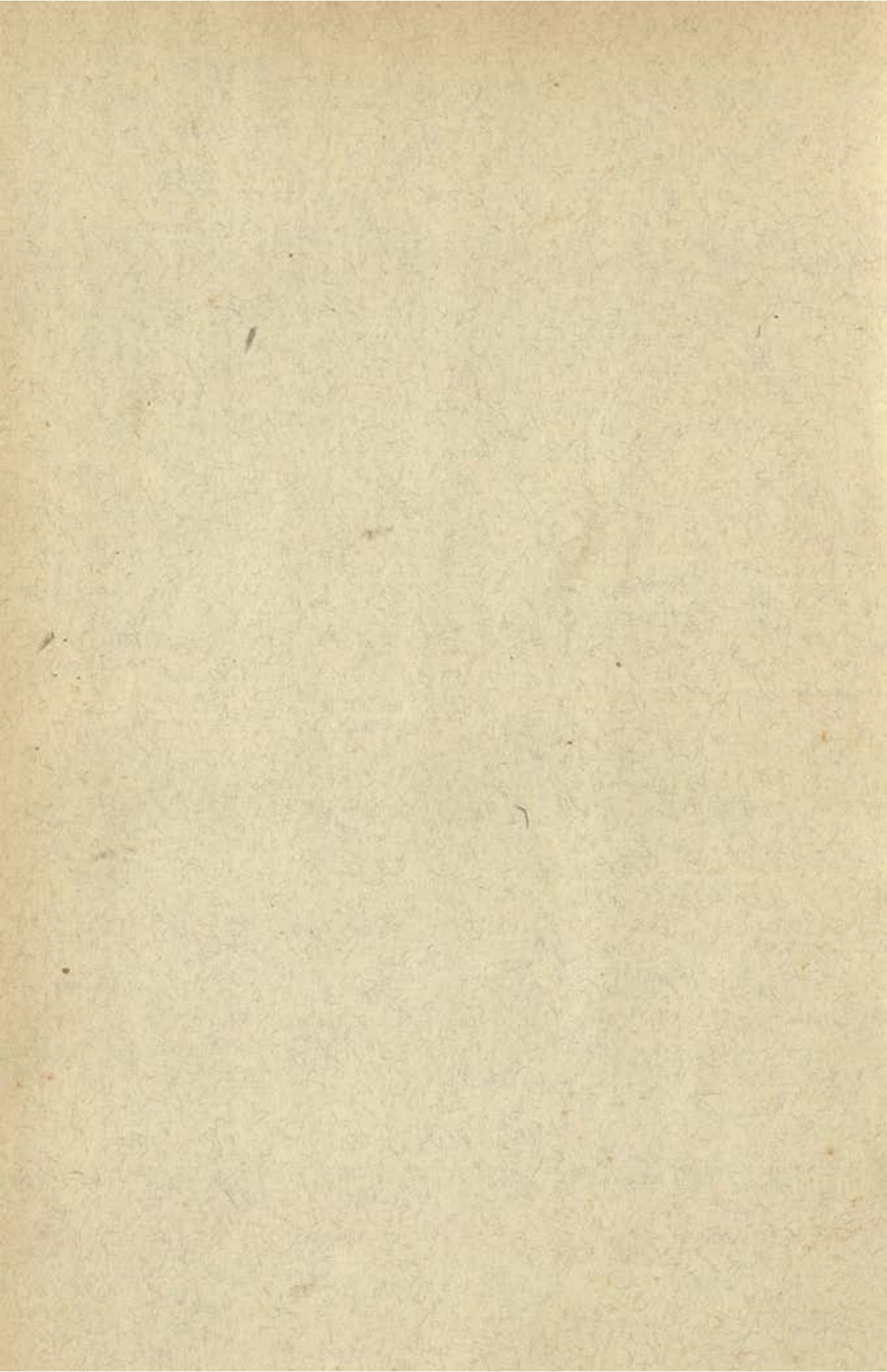
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J.H.S.

Vol.

61

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C. A. L.
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THE JOURNAL OF
HELLENIC STUDIES

X

1347

THE JOURNAL OF HELLENIC STUDIES

VOLUME LXI

1941



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J. H. S.

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MEETINGS

OF THE SESSION 1940-1941

At the Inaugural Meeting of the Session, held on November 5th, 1940, at the Ashmolean Museum, Oxford, in association with the Oxford Philological Society and the Oxford branch of the Classical Association, Professor Wade-Gery read a paper before a large audience on 'Thucydides as Military Historian' in which he considered the following problems: How far does Thucydides share the normal Greek militarist outlook? While admiring skill (or 'style') in the handling of forces and tactical problems, is he blind to strategic issues? Does he misconceive the strategy of Perikles? Professor Wade-Gery also discussed αἰδώς and εὐνουςίαι, the conditions of hoplite and of naval warfare, and the historian's attitude to the successors of Perikles.

In his preliminary remarks from the Chair the President observed that no more fitting subject could have been chosen for this meeting, held at a date when the Greek people were facing superior odds, not for the first time. He announced that a telegram of sympathy was to be sent to the Greek Minister in London on behalf of the Society. A vote of thanks to Professor Wade-Gery was proposed by Professor Adcock and warmly applauded.

A second General Meeting was held on February 4th, 1941, at Burlington House, where Mr. Wormald read a paper, illustrated by lantern slides, on 'A Byzantine Psalter.' He described the system of Psalter illustration employed in the Byzantine world. This book, he said, had long been illustrated in both Eastern and Western churches. There were four methods employed and the choice of subjects was based upon three principles: direct illustration, symbolic illustration, and prophetic illustration. All these were employed in Add. MS. 40731 in the British Museum, which formed the background of the lecture.

Sir Frederic Kenyon proposed a vote of thanks, which was heartily applauded.

A Third General Meeting was held on May 6th, 1941, at the Museum of Classical Archaeology, Cambridge, in association with the Cambridge University Classical Society and the Cambridge Antiquarian Society. Professor A. B. Cook read a paper, with lantern slides, on 'A new Metope Head from the Parthenon,' which is published in this number of the *Journal*. Professor D. S. Robertson was in the Chair, and though no formal vote of thanks was given, owing to Professor Cook's invitation to the audience to inspect the antiquities which he had brought to illustrate his paper, their appreciation was enthusiastic.

The Annual Meeting of the Society was held on June 24th, 1941, with the President, Sir Richard Livingstone, in the Chair. Before moving the adoption of the Annual Report and Accounts, he announced that war duties had prevented him from preparing an Address for this last occasion on which he would speak as President of the Society, but that Professor Gilbert Murray had agreed to address the meeting in his place.

The motion for the election of the new President, Dr. Pickard-Cambridge, the re-election of the Vice-Presidents, the election of Mr. C. T. Edge, M.A., F.C.A., as Honorary Member, and of ten new members of the Council as detailed in the Annual Report, was proposed by Professor Gilbert Murray and seconded by Dr. H. I. Bell. It was carried unanimously. Miss A. Woodward then proposed, and Mr. Wharton seconded, the re-election as a sole auditor of Mr. C. T. Edge, Mr. Macmillan having decided not to stand again. This was carried unanimously and it was agreed that a letter of thanks should be sent to Mr. Macmillan for his long service on the Society's behalf.

Professor Gilbert Murray then read his paper on Euripides' *Trilogy* of 415 B.C. He spoke first of *Paracharaxis*—the changing of conventional values, as typified in the 'Troades,' where what should have been the consummation of a great and joyful conquest is shown, in fact, as great misery. He went on to demonstrate that the whole tetralogy of which it formed part, produced after the useless brutality of the destruction of Melos, was inspired by the same spirit as the 'Troades.' It consisted of 'Alexandros,' 'Palamedes,' 'Troades,' and 'Sisyphus.' The plot of the first of these as known to us from Hyginus, had lately been reconstructed from fragments of the text. The recognition of Paris after his repudiation in infancy on account of his mother's dream and his rescue from death at his brothers' hands, follows the conventional fairy-tale pattern. Only the cowherd, turned prince, is still the firebrand who shall burn Troy.

Palamedes, who discovered the art of writing, became in classical times the type, like Prometheus, of the innocent man unjustly condemned. In the second play of this tetralogy, his father, knowing that Palamedes was dead through the slanders of Odysseus, lit wrecking flares to destroy the Greek fleet on its victorious return from Troy. This play, bringing the Greeks as well as the Trojans under a curse, led the way to the *Troades*, and also made Sisyphus a fitting subject for the final satyric drama. The *Paracharaxis* of the *Troades* is clearly expressed in Cassandra's claim that the conquered righteous are happier than the unjust conquerors. Her soul is shown unstained by outrage and her death as holy. Hecuba's vision expresses an even more profound revaluation. She sees in the very completeness of suffering its splendour for the time to come. She has a glimpse, in fact, of a new scale of values, of which 'all is vanity' is only the opening stage.

The whole tetralogy, said Professor Murray, was thus inspired by the same spirit as the *Troades* itself, the first play showing the curse upon Troy for mistaking the destroyer for the saviour, the second the curse upon the Greeks for preferring false wisdom to true. The third showed fulfilment of both curses and the emptiness of all received values, a darkness in whose heart stirred an unknown value created by the whole past illusion and wrong.

The President's proposal of a vote of thanks to Professor Murray was heartily acclaimed.

The Society for the Promotion of Hellenic Studies

BALANCE SHEET, DECEMBER 31, 1941.

<i>Liabilities.</i>		<i>Assets.</i>	
£	s. d.	£	s. d.
To Debts Payable.....	167 9 9	By Cash in Hand—	
" Subscriptions paid in advance	54 10 0	Bank	276 7 7
" Endowment Fund	2039 12 0	Assistant Treasurer.....	22 2 8
(includes legacy of £180 from the late Prof.		Petty Cash	40 19 6
P. Gardner, £200 from the late Canon		Deposit Account	300 0 0
Adam Farrar, £200 from the late Rev.		Special Deposit Account (Donation from	
H. F. Tozer, and £500 from the late		Arch. Inst. of America)	123 15 3
Mr. G. A. Macmillan).			763 5 0
" Life Compositions—		Debts Receivable	104 14 5
Total at January 1, 1941	2156 14 0	" Investments, At Cost.....	*2725 0 0
Received during year	— —	" Present values (not reckoned	
		here) —	
Less carried to Income and Expenditure		£453 Calgary & Edmonton Rly. Co. 4%	
Account—Members deceased	2156 14 0	Consolidated Debenture Stock.	
	63 0 0	£200 3% Defence Bonds.	
" Surplus at January 1, 1941	1305 6 11	£764 12s. 4d. 3½% War Stock.	
Add Balance from Income and Expendi-		£239 17s. 7d. 4% Consolidated Stock.	
ture Account	323 9 3	£1395 4s. 6d. 3½% Conversion Loan	
		£154 7s. 3d. Nottingham 3% Irredeemable	
Surplus at December 31, 1941	1628 16 2	Stock.	
		" Library Premises Capital Account—	
		Amount spent to date	5584 13 10
		Less Donations received.....	4699 11 4
			885 2 6
		Transferred to Income and Expenditure	
		Account during past years	681 0 0
			204 2 6
		Now transferred	23 0 0
			181 2 6
		Estimated Valuation of Stocks of Publica-	
		tions	300 0 0
		" Valuation of Library	1500 0 0
		" Valuation of Photographic De-	
		partment	200 0 0
		" Paper in hand for printing	
		Journal	150 0 0
			2150 0 0
			£5984 1 11

* The Investments as at December 31, 1941, had a value of £3326.

The Society for the Promotion of Hellenic Studies

INCOME AND EXPENDITURE ACCOUNT. FROM JANUARY 1, 1941, TO DECEMBER 31, 1941.

<i>Expenditure.</i>		<i>Income.</i>	
	£ s. d.		£ s. d.
To Salaries	447 2 2	By Members' Subscriptions—	
" Pensions Insurance	16 0 0	Arrears	22 1 0
" Miscellaneous Expenses	112 12 8	1941	1083 13 6
" Stationery	10 5 11		
" Postage	46 15 1	" Members' Entrance Fees	1105 14 6
" Sundry Printing, Rules, List of Members, Notices, etc.	64 4 8	" Student Associates' Subscriptions—	11 11 0
" Heating, Lighting, Cleaning, Maintenance of Library Premises, etc.	341 14 2	Arrears	5 15 6
" (including second floor dilapidations and war damage repairs throughout).		1941	25 14 0
" Insurance—			
General		Libraries' Subscriptions—	
War Damage	24 18 4	Arrears	2 2 0
Less amounts recovered	198 16 8	1941	144 18 0
	107 10 9		
" Grants—		" Life Compositions brought into Revenue Account	147 0 0
British School at Athens	10 0 0	Dividends on Investments	63 0 0
" " Rome	5 5 0	" Contributed by the Society for Promotion of Roman Studies	114 13 10
" Balance from 'Journal of Hellenic Studies' Account	15 5 0	" Sale of 'Ante Oculos'	275 0 0
" Balance from Library Account	40 19 1	" Sale of 'Artemis Orthia'	2 0 0
" Balance from Library Premises Account ..	4 7 9	" Miscellaneous Receipts	2 19 0
" Balance	300 7 9	" Donations towards current expenses	2 18 1
	323 9 3	" Balance from Lantern Slides and Photo- graphs Account	7 19 11
		" Donation from Arch. Inst. of America	13 4 8
			123 15 3
			<u>£1899 7 9</u>

THE MEASUREMENTS OF THE ZEUS AT OLYMPIA

New Evidence from an Epode of Callimachus.

I. INTRODUCTION.

'SOME writers have recorded the measurements of the image (of Zeus at Olympia), and Callimachus has made them known in one of his iambs.' The words of Strabo¹ were the only evidence for a Callimachean poem on this subject. There is also some possibility that Pausanias, in his hit at the men who described the measurements, alludes to the same poem.² Recently, considerable fragments of this iambus have emerged, bit by bit, in the course of a few years. It became evident that we had always been so fortunate as to possess at least the beginning of the first line (quoted by the Scholia to Pindar), and it is a little depressing that nobody had been clever enough to combine the words 'Ἀλῆιος ὁ Ζεύς, expressly attributed to Callimachus, with the iambus on the Olympian Zeus mentioned by Strabo. The complete first line and a summary of the whole poem came to light in 1934 (Pap. Milan 18, col. VII, 25-29);³ then scanty scraps of the first twenty-one lines turned up in 1935 (P.S.I. 1216, col. II, 79-99);⁴ and, finally, better-preserved pieces of the main part, containing the measurements and a few words from the end of the poem were published last Christmas (P. Oxy., 2171, fr. 2-5).⁵ P.S.I. 1216, excavated in Oxyrhynchus by the Italians in 1933, now in Florence (if not returned to Egypt), and P. Oxy. 2171, found long ago by Grenfell and Hunt in Oxyrhynchus, now in Oxford, are parts of the same papyrus, probably second century A.D. This is not the only example in Callimachus of scattered pieces being assembled and taking shape; but in this, as in other cases, they are still far from forming a continuous whole.

From the Milan *διηγῆσεις* we learnt that 'Ἀλῆιος ὁ Ζεύς was the sixth among the thirteen poems of the book 'Iambi,' which Callimachus called his 'pedestrian Muse'; the poem consists of iambic trimeters alternating with ithyphallics (like the epode on a work of Epeios, which follows as the seventh), and is written in a conventional Doric. We should hardly guess from the context that the detailed information about the image, the cost, and the artist was given by the poet to one of his acquaintances who was just leaving for the Peloponnese; this knowledge also we owe to the *διηγῆσεις*. We might therefore call the poem, with the first editors, a 'Propempticon,' but it would be a quite peculiar specimen of that genre.

The purpose of this article is to convey to archaeologists the new material and some suggestions which may be of use for the reconstruction of Pheidias' work. Mr. Lobel provided an admirable first edition of the Oxyrhynchus papyrus, definitely improved in the 'Addenda.'⁶ He abstained, however, from going into details of interpretation, especially about the measurements (pp. 57, 184); and it is with these that this paper is concerned. Putting the 'disiecta membra' together, I shall give the text of all the lines preserved, with critical apparatus and a short commentary in Latin; thus every reader will be in a position to form his own judgment. In the 'conclusion' I shall sum up the main points.

The measurements, said Pausanias, can give no idea of the impression made by the image on the spectator. Nevertheless, modern archaeologists have been most eager to find them out. The excavations at Olympia have yielded no more than two fairly precise figures: the

¹ VIII, p. 354. See below, p. 2.

² Paus. V, 11, 9. Speculations about common sources or relations to other writers C. Robert, *Archaeolog. Maerchen*, 51, 2 and U. von Wilamowitz, *Der verfehlte Koloss in Strena Helbigiana* 335 (= *Kleine Schriften*, V, 1, 515).

³ *Διηγῆσεις διὰ ποιητῆς τοῦ Καλλίμαχου*, Ed. pr. by M. Norsa and G. Vitelli, Florence, 1934. Second edition by A. Vogliano, *Papiri della R. Università di Milano*, vol. I (1937), p. 103, plate III. (PRIMI).

⁴ *Publicazioni della Società Italiana per la ricerca dei Papiri*.

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Papiri Greci e Latini, vol. XI (1935), p. 126, pl. XI (M. Norsa and G. Vitelli).

⁵ *The Oxyrhynchus Papyri*, vol. XVIII, ed. E. Lobel (and others) 1941 pp. 56-62 and *Addenda*, p. 183 sq., pl. IX.

⁶ It may be worth saying that I found the sense and partly the wording of lines 25 and 37, when I was kindly given an opportunity of going through the first proofs. This was before Mr. Lobel joined the small fragments 4 and 5 with the main piece.

pedestal of the throne is 6.65 metres broad and 9.67 or 9.93 metres long.⁷ No trace either of the throne or of the colossal statue now remains. Representations of the whole image exist on bronze coins of Elis issued under Hadrian. It is hazardous to take them as a starting-point for calculating the proportions of throne and statue;⁸ but they may be not without value, if they conform to conclusions drawn from quite different premises. As the evidence was so scanty, a wide field was open to speculation, and it is natural enough that the measurements have been very variously given by modern writers. I shall not discuss these conjectures; references to some near misses will be found in the notes to the respective lines of the text.⁹

2. THE SIXTH IAMBUS OF CALLIMACHUS.

Ἀλγεῖος ὁ Ζεὺς, ἃ τέχνα δὲ Φειδία
 . . . ωχ . . . [
 η . . .] . . . το . . . [
 . . . [
 5 . . . [
 αυτ[
 αν . . . [
 τῶ . . . [
 ουκ[
 10 . . . α . . . ['] . . . ° [
 . ανδιφ [
 Πισαν ω [
 παχ . . . τιμ[
 εκδε . . . [
 15 . . . [
 vv. 16-21 vestigia primae litterae.

1-21 = PSI 1216, col. 2, 79-99. 1. suppl. N.-V. e Dieg. VII, 25. 2. πτωχ legi nequit; in init. hasta longa litt. φ vel ψ esse videtur (Pf.). 11. διφθέρα[litt. vestigiis convenit (Pf.). 12. πισαν φ ut in Pind. et Bacchyl., sed metri causa πισαν scr., qua forma Call. semper utitur; post ω fort. π; cf. v. 29 ὦ π; et 23; tum potius β[quam ρ[(Pf.).

1. Schol. Pind. O.X, 55 τὸν ἐν Πισῇ δὲ Δία Ἥλειον εἶπε Καλλ. (= fr. 99 Schn., 25 Pf.¹) 'Ἄλγεος ὁ Ζεὺς.' Steph. Byz. v. 'Ἥλιος . . . Ἥλειος ἄφ' οὗ 'Ἄλγεος ὁ Ζεὺς.' Studem. Anecd. I, 264, Anon. Ambros. 14 (ἐπιθετα Διός) Ἄλγεος. Lex. Ambros. ined. 1282, unde Suid. v. Ἄλγεον I, p. 106, 28 Ad.; cf. Pind. I. II, 24, Ζηνὸς Ἄλγεος. 2. 399. prior pars iambi ad iter γωνίμου spectare videtur, v. 11, 12 (?); hunc familiarem alloquitur poeta infra v. 45 et 62.

Dieg. VII, 25. Ἀλγεῖος ὁ Ζεὺς, ἃ τέχνα δὲ Φειδία (φιδ-ρ). Γνω/ρίμω (-ισμω ρ) αὐτοῦ ἀποπλέοντι κατὰ θέαν (δεαν ρ)/τοῦ Ὀλυμπίου Διὸς εἰς Ἥλιν διηγείται μήκος ὕψος πλάτος βάσεως θρόνου/ὑποποδίου αὐτοῦ τοῦ θεοῦ καὶ ὅση ἡ/δαπάνη, δημιουργὸν (-γου ρ) δὲ Φειδίαν (φιδ-ρ) Χαρμίδου Ἀθηναῖον. Cf. Strab. VIII 353/4 μέγιστον δὲ τούτων (sc. anathematum in Olympia positorum) ὑπῆρξε τὸ τοῦ Διὸς ξοάνον, ὃ ἐποίει Φειδίας Χαρμίδου Ἀθηναῖος ἐλεφάντινον . . . ἀνέγραψαν δὲ τινες τὰ μέτρα τοῦ ξοάνου, καὶ Καλλ. (= fr. 75 Schn., 11 Pf.¹) ἐν ἰάμβω τινὶ ἐξεῖπε. Paus. V 11, 9 μέτρα δὲ τοῦ ἐν Ὀλυμπίᾳ Διὸς ἐς ὕψος τε καὶ εὖρος ἐπιστάμενος γεγραμμένα οὐκ ἐν ἐπαίνῳ θήσομαι τοὺς μετρήσαντας, ἐπεὶ καὶ τὰ εἰρημένα αὐτοῖς μέτρα πολὺ τι ἀποδέοντά ἐστιν ἢ τοῖς ἰδοῦσι παρέστηκεν ἐς τὸ ἄγαλμα δόξα.

Abbreviations: Schn. = Callimachea II, ed. O. Schneider, 1873; Pf.¹ = Callimachi fragm. nuper reperta ed. R. Pfeiffer, 1923; N.-V. = M. Norsa and G. Vitelli, see notes 3, 4; L. = E. Lobel, see note 5.

⁷ 'Long' really means 'in depth,' from east to west. The figure of the length, originally given by W. Dörpfeld, *Olympia*, II (1892), p. 14, as 9.93 metres, has been altered by F. Forbat in *Alt-Olympia*, I (1935), 233 sq. The westernmost 'Aufschnürung' is no longer regarded as a part of the base. The decision between the two variants must be left to experts. But Callimachus seems to agree with Dörpfeld. See below, note 13.

⁸ Best reproduction in *Jb.*, 46 (1931), p. 11, fig. 7; see

Langlotz, *Antike*, 4 (1928), 40.

⁹ On the measurements recently also: F. Eichler, *Oe. Jh.*, 30 (1937), 105 sqq.; (a paper on the throne by an anonymous writer, said on p. 110 to be in prospect, seems not to have been published); E. Buschor, *Bay. Ak.-Sb.* 1938, 3, p. 7; G. Lippold, *R-E* XIX, 2 (1938), s.v. *Pheidias*, col. 1920 sqq.; J. Wiesner, *R-E* XVIII, 1 (1939), s.v. *Olympia*, col. 87, 90. G. Lippold, *EA*, 4524.

- .ς λαγὸς χελύναν
 καὶ τῷ πῖβαθρον τῷ θρόν[ω] τὸ χρύ[σε]ον
 .] . εν ἐπλάτννται
 25 . .] . δ[.] εἰρὰν πέντε τε[τ]ρ[άκι]ν [πο]δῶν
 . . .] τ[.] δ' ἐς ἰθὺ,
 . . .] . . τετράδωρα ταν[] . [
 . . .] .] αἰ παλασται .
 .] Ἀυδιεργὲς δ' ὦ 'πι θῶγιον βρ[έ]τα[ς]
 30 .] ἄνω κάθηται
 . .] . μὲν τρεῖς ἐς τὸ μακρὸν ἰδ[.] . [. .] δέκα
] ἱκατιν δ' ἐς εὖρος
] ὑν[.] ἐς[. . . .] μ[
] δετοιμ[
 35 . . .] . ακ[. .] τ[ά]ϊος ἐ[.] . ἱκοιτ[.] . . [
 .] αχ[. .] κ' ἐλο[.] . σ .
 αὐτὸς δ' ὁ δαίμων πέντε[ε] τ[ᾱ]ς ἐφεδρ[ι]δος
 παχέεσσι μάσσων
 .] ἰτεῖ δὲ Νίκα χη . εἰς δυ[.]
 40 . . .] . [.] εἰ τελεῖ . . [
 . . .] .] η . ἐκηπ[.] . [.] αττιδ[
 παρθένου γὰρ ὦραι
 τᾶν ὀργυιαῖαν ὅσον οὐδὲ πᾶσ[σα] λῶν
 φαντὶ μειονεκτεῖν .
 45 τ[ὸ] δ' ὧν ἀνασιμόμα — λίχνος ἐσσι [γάρ
 καί, τό μεν πυθέσθαι —
 . . .] . [.] . μὲν [ο]ύ [λ]ογιστὸν οὐδ . [.] ἐ[
] .] ἐς τε χρυσόν
] . [. . .] . [.] . [

vv. 50–58 desunt.

22–49 = P. Oxy. 2171, fr. 2, col. 2, 1–28. 22. vix ὧς (L.), fort. ὧς = ἔως? (Pf.). 23. πῖ ἐν χρύ[σ]ῳ . 25.] εἰ vel fort.] ο,] εἰρὰν m.¹] εἰρὰν corr. m.² i.e.] εἰρὰν (non] εἰρὰν) cf. 22 χελύναν et pap. Bacchyl. *passim*. τ . [vel π[L. suppl. Pf. 26. εἰθ, ρ . 29. δ' ὡπθῶ ρ suppl. L. in marg. dextro. τ . . / . . [, fort. explan. craseos. 29. sq. τὸ] ἄνδ.—[σέμ] . ἄνω vel ἔδρ] ἄνω longius spatio L. 31. ἰδ[vel ἰδ . [32. ακ in init. excludi nequit. 35.] πακ,] ται vel] γαι, ante ἱκ κ legi potest, sed fort. εἰ L. 36. π] ἐχως? L. fort. κ', λρ vel λρ. 37. suppl. et L. et Pf. 39. fort. χηρ, vix χηρ, potius χήλ. 41. ητ, ηπε. 43. ὀργυιαῖαν, ρ corr. Pf. -αῖαν L.; suppl. L. 45 sq. suppl. L. e fr. 98^a, 1 Schn. (23 Pf.). 47 sq. suppl. L.

22. ad prov. vel fabulam alludere videtur; cf. Prov. Bodl. 786 (Ps.-Diogenian. VII, 57, Suid. v. δασύπους et πρότερον) πρότερον χελώνη παραδραμαίται δασύποδα ἐπὶ τῶν ἀδυνάτων et Aesop. 420 Ha. = 353 Cha., Babr. 177 Cr. χελώνη καὶ λαγῶς. 23–28. descriptio baseos. 23 sq. ἐπὶ βάθρον vix βάθρον ipsum esse potest; cf. Paus. V, 11, 8, ἐπὶ τούτου τοῦ βάθρου χρυσῶ ποιήματα; fort. ἐπλάτννται vel ἐπεπλάτννται ad has aureas imagines referendum est, quibus lata baseos frons ornatur. 25 sqq. de mensuris nihil constat nisi baseos latitudo (6.65 m) et longitudo (9.93 aut 9.67 m), v. W. Dörpfeld in *Olympia*, II (1892), 14 et F. Forbat in *Alt-Olympia*, I (1935), 233 sq. 'pes' circiter 330 mm, ut recte contra alios W. Dörpfeld, *Olympia*, II, 19, Lehmann-Haupt, *R-E*, III, A 2, 1944, 17; cf. 1938, 52, et tabellam, 1961 sq. (330–2 mm), cf. H. Riemann, *Zum griech. Peripteraltempel*, Diss., Frankf., 1935, 61 sq.—'viginti pedes' = 6.60–6.65 m. 26. ἐς ἰθὺ 'in directum' (cf. e.g., Paus. VII, 23, 6 ἐς εὐθὺ; Xen., *Eq.* VII, 17), i.e., baseos 'longitudo.' 27 sq. mensurae minores ad altitudinem baseos (1.09 m?) spectare videntur. 29–36. mensurae sellae (et ὑποπόδιου?) 29 sq. Ἀυδιεργὲς novum; cf. Ath., XI, 486 C-E, et Poll. VI, 97 Ἀυδιεργὲς Ναξιοργὲς similia. 31. ἐς τὸ μακρὸν 'in altum,' cf. 38 μάσσων deus sedens quinque cubitis 'altior' est quam thronus; thronus latus est viginti, sc. pedes, ut basis (cf., e.g., F. Winter *Oest. Jh.*, 18(1915), 2 sqq.), triginta pedes altus (μήκος = altitudo *SIG*³ 969, 38). 32. ἱκατιν cf. Hesych. v. ἱκατιν εἰκοσιν inter 33 et 36 mensura lateris periit. 37 sq., cf. adnot. ad 31, altitudo simulacri: XXX pedes (30 × 330 mm.) + V cubiti (5 × 495 mm.) = 12.375 m. incl. ὑποπόδιον (cf. e.g., Sieveking-Buschor, *Münch. Jahrb. f. bild. Kunst*, 1912, 145; G. Q. Giglioli, *Il trono dello Zeus di Fidria*, *Mem. d. Lincei*, Ser. V, vol. 16 (1920), 301: 12–12.5 m.; cellae altitudo: 14.33 m. H. Riemann, l.l. p. 66). 39. Paus. V, 11, 1 ἐν μὲν δὴ τῇ δεξιᾷ φέρει Νικην ἐξ ἑλεφαντος καὶ ταύτην καὶ χρυσοῦ. 42. Cf. Paus. V, 11, 7 ἐπὶ δὲ τοῖς ἀνωτάτω τοῦ θρόνου πεποιήσαν ὁ Φειδίας ὑπὲρ τὴν κερὰν τοῦ ἀγάλματος τοῦτο μὲν Χάριτος, τοῦτο δὲ Ὀρος, τρεῖς ἑκατέρως. 43. οὐδὲ π. cf. Aristoph. *Ecl.*, 284, ἔχουσι μὲν πάντας (L.) 'Horae enim dicunt se ne minimum quidem minores esse quam illas unam ulnam (VI pedes = 1.98 m.), longas (i.e., Gratiarum)' Pf. 45 sq. Schol. T, Ξ, 172 'ἔδαν' δὲ τῷ εὐώδει, οἱ δὲ ἡδὲ, γλυκεῖ ἀσθησις ἀντὶ αἰσθήσεως, ὡς παρὰ Καλλ. 'λίχνος εἶμι καὶ τὸ πυθέσθαι'; cf. P. Oxy. 2080, 86. 47 sq. auri habita ratione.

]ωθεδησ' ὁ Φειδ[ίας
60]'Αθανα[
] . [.] . [.] . δ' ὁ Φειδία πατ[ήρ .
.....]ἀπέρχεν .

59-62 = P. Oxy., 2171, fr. 3, 1-4. 59. φιδ[p litteris minoribus superscr.]π[corr. et suppl. L. 61. suppl. L.

59 sq. Paus. V, 10, 2. Φειδιαν δὲ τὸν ἐργασάμενον τὸ ἀγάλμα εἶναι καὶ ἐπιγράμματα εἶσιν ἐς μαρτυρίαν ὑπὸ τοῦ Διὸς γεγραμμένον τοῖς ποσὶ· 'Φειδίας Χαρμίδου υἱὸς Ἀθηναῖός μ' ἐποίησε' (F. v. Hiller, *Hist. griech. Epigr.*, 48). 62. Cf. Call. epigr. 40, 6 W. ἔρπε χαίρων narratione finita in exitu carminis.

3. CONCLUSION.

It is on line 25 that the decision almost depends. Now, τε[τ]ρ[ά]κι corresponds exactly to the traces of letters as well as to the space left between them. It cannot be what we call 'verified,' but there is no objection as far as the papyrus is concerned. In dactylic poems Callimachus used the forms τετράκι, ἐξάκι; to the 'Doric' dialect of this epode the multiplicative in -κιν, attested by Laconian inscriptions,¹⁰ is quite appropriate. The words βάθρον and ἐπλάτνυνται precede line 25, and the description of the throne does not start before line 29: so it may be reasonably assumed that the dimension 'four times five feet'¹¹ refers to the breadth of the base. This assumption is proved to be correct by line 32, where the throne is said to be 'twenty in breadth.' As far as I can see, nobody has doubted that the throne was as broad as the base. The uncovered base measures 6.65 metres; consequently, Callimachus used in his description a foot of ca. 0.330 metre.¹² The dimension of the base, which is generally called its 'length' in modern languages, is expressed by ἐς ἰθὺ 'in the straight direction,' and that is, although an unusual, a very good expression; the beginning of l. 26 is lost,¹³ but the measurement itself is known. Great disappointment will be felt that the corresponding dimension of the throne—in this case usually called its 'depth'—is lost in the lacuna after l. 32; so the papyrus does not help the reconstruction of the Niobids.

On the other hand, the measurements of the height come out perfectly well. As the linear unit for the figure 'twenty,' which gives the breadth of the throne in l. 32, has been proved to be a foot of 0.330 metre, the words immediately preceding, 'three times ten,' refer to the same linear unit and mean 'thirty feet' or 9.90 metres. Those feet are said to be ἐς μακρόν, that is 'in the upward extent,' as μήκος is used for the height of pillars in inscriptions; but the word μάσσων in l. 38 confirms this interpretation better than any external consideration. The god himself is five cubits μάσσων than the seat, that is evidently 'higher.' He measures twenty-five cubits of 0.495 metre or 12.375 metres.¹⁴ The proportion of throne to statue is four to five; the Elean coins show exactly the same. Finally, there is the height of the Horai in lines 42-4. 'On the uppermost parts of the throne . . . (Pausanias tells us) Pheidias has made on one side the Graces and on the other side the Seasons, three of each.'¹⁵

¹⁰ IG V, 1, 1 A 12, 13; 213, 9, 16, 19; cf. Theocr. 30, 27, ὀπισσάων ἔνθα.

¹¹ The post-position of the multiplicative may sound rather strange; but there is hardly any other Greek writer who handled the order of words with such astonishing liberty as Callimachus.

¹² My impression is that Dörpfeld and Lehmann-Haupt came nearest to the point; I have referred to their articles and to Riemann's dissertation (see A. von Gerkan's review in *Gnomon*, 1937, pp. 84 sq.) in the notes to l. 25. But I am afraid I must leave it to specialists to decide which metrological system was used. It seems to be the so-called 'Pheidonian' foot. If Pheidias used this measure for the image, it does not necessarily imply that the same was used for the temple, see esp. Riemann, pp. 61 sq.

¹³ I venture to suggest only in this annotation ἐξά[τ]ις δ' ἐς ἰθὺ. There were Doric multiplicatives in -τις, as it is attested by Hesychius, s.v. ἀμάτις (ἀματίς cod.)· ἀπαξ.

Ταπαντίνοι, see F. Bechtel, *Die griech. Dialekte*, II (1923), p. 402. For the strange form ἰκανν in l. 33 we have also no other support as a gloss of Hesychius ἰκανν (sic), see E. Schwyzler, *Griech. Grammatik*, I (1939), p. 591. A trace before δ is reconcilable with the right-hand lower curve of ε and the combination ις is perhaps not too much for the gap between τ and δ.

¹⁴ Most modern estimates have been on the short side.

¹⁵ Paus. V, 11, 7, ὑπὲρ τὴν κεφαλὴν τοῦ ἀγάλματος seems not to conform to the clear statements of the poem. The head rose seven and a half feet above the back of the throne, the figures, if they stood on the top of the crossbar (ἐπὶ τοῖς ἀνωτάτω τοῦ θρόνου), no more than six feet. So the head of Zeus was still one foot and a half higher. Or may there have been pedestals on the crossbar, two or more feet high, not mentioned either by Callimachus or Pausanias? Graces and Horai, if set on such pedestals, would have risen ὑπὲρ τὴν κεφαλὴν τοῦ ἀγάλματος.

We now learn that the figures of both groups were one fathom high (6 feet = 1.98 metre). The papyrus reads ὀργυιαῖαν. Since the α of the ending -αν is long, there must be something wrong with the accentuation; Mr. Lobel writes ὀργυιαίαν, adding the note: 'For the maiden Seasons say that the six-foot one comes not a πάσσαλος (?) short: a strange way of saying that some one does not fall short of six feet.' That would indeed be much too strange. No, all we have to do is to move the circumflex a little to the right and to read ὀργυιαῖαν; the Doric genitive plural depends on μειονεκτεῖν: 'The maiden Seasons say they are not even a pin shorter than the women who are one fathom high.'¹⁶ This seems to me rather a charming way of implying that the Horai feel a certain pride: they stress the fact that they receive the same treatment as the Charites, whom the artist as well as the poet always respected highly.

There is no reason why we should distrust Callimachus' sober statements; his source may have been an early 'Periegesis' of Elis. He had the desire of true knowledge, and the pleasure of learning was to him the least perishable of pleasures in human life. He avoided any sort of flabby rhetoric, he aimed at precise facts. Strabo was clearly right in saying that the image of Zeus, though seated, almost touched the roof with its head; for if the cella was 14.33 metres high, the statue 12.375 and the base, of which the measurements are still unknown, about 1 metre, the distance between head and roof was no more than a metre. Pausanias, loudly applauded by a modern critic, disapproved of the writers on measurements. We only hope that the traveller to Olympia, whom Callimachus presented with this exquisite 'guide,' was free from such austere pedantry; if so, he enjoyed the useful information as well as the perfect workmanship of the poem, felt the touch of irony, and understood the fun.

R. PFEIFFER.

¹⁶ Perhaps we had better write τῶν ὀργυιαῖαν, since the third syllable is short. To οὐδὲ πάσσαλον which, though not verifiable, can hardly be doubted, one may compare the Latin proverbs Plaut. *Aulul.* 57, Cic. *ad Att.* 13, 20, 4, etc. 'ne unguem latum discedere' or 'digitum' Plaut., *Bacch.*, 423, etc. Erasmus *Adag.* 406 (*epist.* 2911, 25),

cites 'ne culmum latum discedere' as a 'modern' variant.

My thanks are due to Professor Beazley, who has kindly read and improved my manuscript. I have had the benefit of discussing the papyrus with Mr. E. Lobel and the subject with Dr. Paul Jacobsthal and Professor D. S. Robertson.

A NEW METOPE HEAD FROM THE PARTHENON¹

[PLATE I.]

SOME years ago at a London sale of antiquities I acquired three marbles described as 'Graeco-Roman heads.' Sale Catalogues are sometimes (not often) unduly modest. One of these heads is in fact an Aphrodite of the Petworth type in close-grained *lychnites*, and might be assigned to the closing years of the fourth century, though I should prefer to call it shop-work of a somewhat later period. A second head is a fragment broken from a small portrait statue in crystalline island marble presumably from the quarries of Naxos: it once wore a metal diadem pegged into a single drill-hole on the nape of the neck and perhaps represented some Hellenistic prince. But the third head (Pl. I),² which forms the main subject of this paper, is of greater moment, for it is—as all who have seen it agree—an Attic original of the mid fifth century, and as such merits the most careful and circumspect investigation.

Of its *provenance* and history little can be said. It came, like other items sold with it, from a collection formed about 1830 by the grandfather of its late owner. The collector was a wealthy man who had certainly visited Egypt and probably made purchases in Rome. In short, we have the usual story of a well-to-do traveller returning from the Grand Tour with a trunk or two full of Levantine spoils.

As to material and measurements, the head in question is of Pentelic marble. Its surface colouring has of course long since vanished, leaving at most a slight darkening of the hair and a small compass-prick to mark the centre of each iris. The rather unusual dimensions, about two-thirds of life-size, suggest comparison with the Lapith heads from the southern metopes of the Parthenon and (this is important) agree closely with the dimensions of the only complete female head attributed with certainty to a metope. That head, first published by Stanley Casson in his *Catalogue of the Acropolis Museum*,³ is described by him as follows:

'Head of a girl. It is in very good condition and is one of the most beautiful of the metope heads. It stands free all round; the eyes are large and set wide apart and the lids are very clearly cut; the mouth is small and full and the lips are parted. There is a band round the hair and the head is turned slightly to the right.'

Much of this description is applicable to our new head also. But those who are conversant with Attic sculpture of the *pentekontaetia* will be aware that an even closer parallel may be found in the Humphry Ward head, to which Mrs. Strong (then Miss Eugénie Sellers) drew attention in 1894.⁴ Resemblance here amounts to identity of type. Indeed, it would be possible to restore the missing side-locks of our head from those of the Humphry Ward head, or the missing nose of the latter from that of the former. Mr. Casson, who has studied both, informs me that in his opinion the two heads are certainly of the same date and school, but that on the whole the new head is finer than the old.

If it be objected that such heads are too simple and severe for a building only finished in 433, being better suited to a context of, say, 460 B.C. or thereabouts, it must not be forgotten that the most recent dating of the metopes—that of Miss Richter⁵—puts them all between 447 and 443, a full decade before the Parthenon was complete; also that some of the metopes are markedly earlier in style than others. Indeed, critics of the Parthenon marbles from

¹ This article repeats, with some curtailment and verbal alteration, a lecture that I gave to the Hellenic Society at its meeting in Cambridge on May 6th, 1941. The lecture was illustrated throughout with lantern-slides, and the head itself was exhibited for inspection and criticism.

² From a photograph by Mr. G. Strickland.

³ Cambridge 1921, ii. 95 f. no. 1309, figs. a, b. Cp.

J. D. Beazley and Bernard Ashmole, *Greek Sculpture & Painting* Cambridge 1932, p. xi fig. 95.

⁴ *Journ. Hell. Stud.* 1894 xiv., 198 ff. pl. 5 figs. 1, 2. The nose is modern and regrettable.

⁵ Gisela M. A. Richter, *The Sculpture and Sculptors of the Greeks* Yale Univ. Press 1929, pp. 32, 49.

Michaelis onwards have always felt obliged to recognise an archaic or comparatively archaic group among them.⁶ The latest writer on the subject, Charles Picard, even suggests that certain *typoi* designed for the first Parthenon were used in the *ateliers* of those who decorated the second.⁷ To cite but a single example, Hans Schrader in 1911 was quick to perceive that a certain high-relief head found on the Akropolis and now in the National Museum at Athens really belonged to the serving maid on metope xviii of the southern series.⁸ Yet that head—none would deny—is decidedly more archaic than ours. After this it will be granted without hesitation or misgiving that the style of the new head is quite compatible with that of the earlier metopes.

But of course it is one thing to suggest that the head in question might have come from a Parthenon metope and quite another to prove that it actually did. I must therefore at once indicate the reasons which led me to believe that such was in fact the case.



FIG. 1.



FIG. 2.



FIG. 3.

To begin with, I noticed that, if the head be looked at from a point directly in front of it, the left eyebrow is appreciably lower and flatter than the right (Fig. 1). This—by a convention familiar to students of transitional sculpture—implies that the head was turned slightly towards its left shoulder. The off eyebrow, so to call it, would then appear with somewhat exaggerated curvature as it passed out of sight and would consequently impress the spectator as being on the same level with the near eyebrow. That rather subtle point was no chance effect of asymmetry, but a definite optical correction known to occur on such works as the eastern pediment of Aegina or the bronze charioteer of Delphi. A head assigned by Furtwängler to an archer in the left wing of the Aeginetan pediment was proved by Duncan Mackenzie⁹ to have come from the opposite wing. Furtwängler's arrangement is wrong—it makes the further eyebrow seem too arched. Mackenzie's arrangement is correct. It is borne out, not only by the corrosion of surface due to the south wind laden with brine, but also by the dotted decoration on the side of the helmet which must have been meant to catch the eye. Again, the same argument from the asymmetric brow has been used by Mackenzie to show that the head of the Delphic charioteer was intended to be viewed in three-quarter profile to the left and that he was driving his chariot in that direction. Applying these rules to the new head, I gather that the correct position for it is as shown in Pl. I. Thus placed it loses its heavy, almost sullen look and gains immensely in dignity and effect.

⁶ See M. Collignon, *Histoire de la sculpture grecque* Paris 1897, ii. 15 ff.

⁷ C. Picard in the *Manuel d'archéologie grecque: La sculpture* Paris 1939, ii. 407 n. 1.

⁸ H. Schrader in the *Jahresh. d. oest. arch. Inst.* 1911

xiv., 58 fig. 61, C. Praschneider, *Parthenonstudien* Augsburg-Wien 1928, p. 60.

⁹ D. Mackenzie in the *Ann. Br. Sch. Ath.* 1908-9 xv., 274 ff.

A second fact with regard to this head is more immediately obvious. The two sides and also the back of it have, at some time or other, been deliberately trimmed into shape, so that much of the hair has disappeared and nothing at all is left of the ears (Figs. 2 and 3). What—we ask—is the reason for this extensive mutilation?

We can hardly reply that the disfigurement was due to modern marauders or dilettanti dealers cutting the face away from a broken background in order to secure a pleasing and saleable work of art.¹⁰ For attachment to a background could not possibly have affected both sides of the same head.

Nor again can it be supposed that the head was thus trimmed by peasants in search of a handy building-block. It is of course notorious that in 478, after the battle of Salamis, when the Athenians at Themistokles' advice rebuilt their wall in hot haste, 'many sepulchral *stélai* and worked stones were laid in it.' So says Thucydides,¹¹ and examples of such *stélai*, which have come to light in the Themistoclean wall, bear out his statement. A good example is the tombstone of a young soldier found in 1907 and published by F. Noack.¹² But in that case most of the relief had been chipped away to allow of the slab lying flat in the wall, and the whole figure had been broken across the knees to form a couple of serviceable stones. Very different is the treatment of our head, the general contour of which has been carefully preserved. As a building-block it would have been a complete misfit.

But if its trimmed surface is due neither to severance from a background nor to employment as a building-block, what other explanation can we offer? A large cylindrical dowel-hole on the top of the scalp (fig. 3)—too large for a mere spike or *meniskos*¹³—suggests that the sculptor, having completed his work, as an afterthought trimmed the surface and fitted a marble veil over it, a veil which covered the back of the head and fell on either side of it. Comparable heads wearing a veil are known from several familiar figures of roughly contemporary date—for instance the 'Hestia' Giustiniani, which presupposes a bronze original, perhaps a goddess but more likely a human matron, or the Berlin 'Aspasia,' nowadays re-christened 'Elpinike,'¹⁴ or again the Berlin head of 'Penelope.'¹⁵ The type persisted into Roman times and meets us once more in the so-called 'Vesta' of the Torlonia Collection.¹⁶ For that matter it reappears in the wonderful quasi-classical carvings of Chartres Cathedral—witness the head of Judith from a side-entry on the north.¹⁷

At this point, however, the critic may be seized by a scruple. 'All very well,' he may say, 'but why did your sculptor add that hypothetical veil only as an afterthought? Ought he not to have included it as part of his original design, and worked both head and veil out of a single block?' I suppose he ought, and I do not pretend to know why he did not. But the problem admits of several solutions. The head as designed may have sustained some accidental damage, which the sculptor adroitly concealed by the addition of the veil. Or the head, originally just like the Humphry Ward head, may have given dissatisfaction on account of its very peculiar ears sticking out through the side-tresses.¹⁸ Or the veil may be due to some later, but still classical, restorer who thought to improve on the metope made by his predecessor. Or (and this, I suspect, is the true answer) the sculptor having finished his figure felt that she was inadequately characterised as a bride and therefore added the bridal veil. By a curious coincidence, perhaps more than coincidental, a Pompeian painting of Peirithoös and Hippodameia receiving rustic presents from the Centaurs gives the bride just such a head as I am supposing.¹⁹

It would seem then that our head, possibly from a Parthenon metope, was turned slightly

¹⁰ Cp. Zeus i., 710.

¹¹ Thuc. i. 93.

¹² F. Noack in the *Ath. Mitt.* 1907 xxxii., 513 ff. pl. 21.

¹³ The hole is cylindrical with a flat bottom and a slightly chamfered or widened top. It measures $1\frac{1}{2}$ inches in depth and about the same in diameter.

¹⁴ P. Gardner in the *JHS* 1918 xxxviii., 19 ff., C. Picard in the *Rev. Arch.* 1935 i., 124 f. ('Aspasia ou Elpinice?').

¹⁵ C. Picard in the *Manuel d'archéologie grecque: La sculpture* Paris 1939 ii., 51 fig. 24.

¹⁶ S. Reinach, *Recueil de têtes antiques* Paris 1903, p. 23 fig. 5.

¹⁷ Hürlimann, *Gotische Kathedralen in Frankreich* Zürich-Berlin 1937, pl. 54.

¹⁸ Mrs. Strong in the *JHS* 1894 xiv., 200 f. fig. 3 acutely compares the treatment of Aphrodite's ear on the central section of the Ludovisi 'throne.'

¹⁹ P. Herrmann, *Denkmäler der Malerei des Altertums* München 1917, pl. 144, S. Reinach, *Répertoire de Peintures Grecques et Romaines* Paris 1922, p. 346 no. 5.

towards its left shoulder and was wearing a veil. Now the extant metopes contain no such figure. But it must be remembered that the extant metopes are not all. Others were blown sky-high by the bombardment of 1687. Fortunately a few years earlier, in 1674, the French Ambassador to the Porte, the Marquis de Nointel, had visited Athens and commissioned a young artist—probably Jacques Carrey of Troyes—to spend a fortnight in sketching the marbles. Thanks to him we know that metope xix of the southern range contained a figure exactly fulfilling our conditions. The sketch made by de Nointel's draughtsman from a point nearly fifty feet below (fig. 4)²⁰ has defects no doubt and can hardly be trusted for precise facial expression. But it leaps to the eye that the stately woman on our left, with face half-turned towards her companion and veil just visible behind her, is the very figure of which we were in search. I venture to claim that our problematic head once rested on her shoulders.

One further confirmatory point. De Nointel's sketch shows the veiled lady touching the left side of her chin with the fingers of her left hand. This explains why the marble head at just the same place is marked by an ugly but original dint. The head was touched by the hand in a pensive gesture not unsuited to a bride.

It remains to enquire who these two women are and what is the action upon which they are engaged.

Till recently it has been supposed—and, in my judgment, rightly supposed—that all the metopes of the southern series, originally thirty-two in number, together formed one vast sectional composition²¹ representing the Centauromachy—the free fight that broke out at the marriage feast of Peirithoös between two sets of invited guests, the Lapiths and their ungainly kinsmen the Centaurs. At either end of the series we see the struggle in progress—twelve metopes on the left and twelve on the right portraying all phases of the combat, Lapith women assaulted by Centaurs and Centaurs at grips with Lapith men. The eight metopes in the middle are less tumultuous and have been commonly thought to show scenes from the wedding ceremonial, centre and cause of all the *fracas*.

But interpretation on these lines of the individual scenes has proved difficult, so difficult in fact that some modern archaeologists have abandoned it as hopeless. Erich Pernice in 1895 advanced the view that these central metopes were concerned with the birth of Erichthonios and the foundation of Athena's cult.²² Georges Perrot in 1898 followed suit.²³ Arthur Smith in the big official publication of 1910 swallows Pernice whole and distinguishes three episodes in the life of Erichthonios—his birth (metopes xiii, xiv), his fight with Amphiktion (xv, xvi), and his establishment of Athena *Poliás* (xvii–xxi).²⁴ Studniczka two years later went even further and fared even worse. He worked in the recognition of Ion by Kreousa in the presence of the Pythia and Xouthos, as well as preparations for the sacrifice of Aglauros—a sacrifice which enabled her father Erechtheus-Erichthonios to vanquish the Eumolpidae.²⁵ Charles Picard in 1926 spoke doubtfully of these patchwork interpolations,²⁶ but in 1939 still postulates the story of Erechtheus-Erichthonios, whoever that equivocal worthy may have been.²⁷ It needed the sturdy common sense of the late Dr. A. S. Murray to brush aside



FIG. 4.—CARREY DRAWING OF METOPE.

²⁰ H. Omont, *Athènes au XVII^e siècle : Dessins des sculptures du Parthénon attribués à J. Carrey* . . . Paris 1898, pl. 6 (metopes xvii–xxiv).

²¹ For a good conspectus of all the southern metopes see e.g. A. S. Murray, *The Sculptures of the Parthenon* London 1903, pl. 10 or M. Collignon, *Le Parthénon* Paris 1910, pl. 23–24 = G. Fougères, *L'Acropole d'Athènes : Le Parthénon* Paris 1913, pl. 23–24.

²² E. Pernice in the *Jahrb. d. kais. deutsch. arch. Inst.*

1895 x., 93.

²³ G. Perrot in *Mélanges Henri Weil* Paris 1898, p. 378.

²⁴ A. H. Smith, *The Sculptures of the Parthenon* London 1910, pp. 29, 32, 34.

²⁵ F. Studniczka in the *Neue Jahrb. f. kl. Altert.* 1912 xxix., 260–264.

²⁶ C. Picard, *La Sculpture Antique* Paris 1926 ii., 16 ff.

²⁷ C. Picard in the *Manuel d'archéologie grecque : La sculpture* Paris 1939, i. 403.

all these frothy hypotheses and insist that the central metopes were not a mere mythological medley—potted Lemprière—but essential parts of a single intelligible whole.²⁸

Let us pause for a moment and ask ourselves: What after all was the primary purpose and significance of metopes? Anthropologists tell us that in simple-minded or uncivilised societies any opening into the human body—mouth, nostrils, ear-holes, etc.—since it might admit of evil getting in has to be safeguarded by appropriate magical means. Hence lip-rings, nose-rings, ear-rings, and the like. Much the same holds good for the buildings of early communities. The portal of every Egyptian temple was protected by the winged solar disk with its two uraeus snakes. Similarly on Greek soil the pediment above the doorway was defended by analogous emblems or garrisoned more effectively still by a gable-group of gods and heroes. Metopes too, being *met-ôpai* or ‘between-holes,’ were another source of possible danger, loopholes which had to be closed by shutters and adorned with prophylactic devices. At first such devices, as at Thermon, were an unmethodical assortment of any and every design likely to prove useful in averting mischief. Then, as art progressed, instead of miscellaneous *motifs* came a sequence of scenes indicative of sheer strength—the labours of a Herakles or the exploits of a Theseus. Finally, on the Parthenon right rather than might was emphasised in a grand scenic arrangement which embraced—

on the east side a combat of Gods v. Giants (superhuman opponents),			
„ west	„	„	Greeks v. Amazons (human opponents, female).
„ north	„	„	Greeks v. Trojans (human opponents, male),
„ south	„	„	Lapiths v. Centaurs (inhuman opponents).

The whole fourfold scheme portended the ultimate triumph of Good over Evil—an appropriate adornment of any temple, not least that of Athena.

It is surely obvious that the intrusion of alien scenes into this carefully planned harmony would have produced intolerable discord and is in fact frankly unthinkable. Praschniker in his *Parthenonstudien* with rare patience and acumen has proved that all the northern metopes without exception illustrate the *Iliou pérsis*.²⁹ It follows that the southern metopes too were a consistent whole, not a cento of incongruous parts. Nothing short of that symmetry would have satisfied the genius of Pheidias. I say ‘Pheidias’ without hesitation or apology. For latterly there has been something of a swing back towards the belief that Pheidias was indeed the designer of the whole complex. An increasing number of archaeological experts—Frickenhau, Buschor, Heckler, Johannsen, Lechat, and others³⁰—is reverting to the view that Plutarch’s account of the matter is absolutely trustworthy. And what Plutarch says is this:³¹

‘Perikles’ general manager and general overseer was Pheidias, although the several works had great architects and artists besides. . . . Everything almost was under his charge, and all the artists, as I have stated, were under his superintendence, owing to his friendship with Perikles.’

On this showing I am free to contend that the Humphry Ward head and its replica the new marble head were carved by an unnamed sculptor *X*, who worked on the Parthenon under the direction of Pheidias. And it may well be that the addition of the bridal veil was due to the criticism of Pheidias himself. But whether we venture to use that great name or are content to say merely ‘a Parthenon master,’ in either case we must insist that the south range of metopes, like any well-constructed play, tells one story, not more than one, and therefore

²⁸ A. S. Murray, *The Sculptures of the Parthenon* London 1903, p. 54 ff.

²⁹ C. Praschniker, *Parthenonstudien* Augsburg-Wien 1928, p. 87 ff.

³⁰ *Id. ib.* p. 246 n. 2. B. Schweitzer ‘Prolegomena zur Kunst des Parthenon-Meisters’ in the *Jahrb. d. deutsch. arch. Inst.* 1938 liii., 1–89, 1939 liv., 1–96 speaks throughout of the ‘Parthenon-Meister,’ but his acute and convincing

observations point towards the triumphant conclusion that the said ‘Meister’ was Pheidias. I am indebted to Captain T. B. L. Webster for a reminder of these important articles.

³¹ Plut. *v. Per.* 13 πάντα ἐξ εἰπέτε καὶ πάντων ἐπίσκοπος ἦν αὐτῷ Φειδίας, καὶ τοὶ μεγάλοι ἀρχιτέκτονες ἔχοντων καὶ τεχνίτας τῶν ἔργων . . . πάντα δ’ ἦν σχεδὸν ἐπ’ αὐτῷ, καὶ πᾶσιν, ὡς εἰρήκαμεν, ἐπεστάται τοῖς τεχνίταις διὰ φίλιαν Περικλέους.

that its central group was concerned in some sense with the marriage of Peirithoös and Hippodameia.

Who, then, in the light of these considerations are the veiled lady of metope xix and her companion? Clearly, the bride and her bridesmaid, *nýmpe* and *nympheutria*. And here a rather curious distinction calls for notice. The bride, like most of the Lapith women, is wearing a Dorian *péplos*. But her attendant wears Ionian *chiton* and *himation*. This appears to have been a matter of artistic tradition. For on the well-known *kratér* at Vienna, which depicts the same scene, the bride assailed by a Centaur is drawn by a bridesmaid into her chamber—the bride clad in Dorian, the bridesmaid in Ionian attire.³² Similarly in the western gable at Olympia Hippodameia wife of Peirithoös and all the Lapith women wear Dorian garb, one woman only—the bridesmaid—wears Ionian.³³

Finally we have to determine the action upon which bride and bridesmaid are engaged. We may get a hint, indeed more than a hint, from the adjoining metope (no. xx). A. S. Murray in 1903 wrote: 'we have two women, standing back to back. One of them, as drawn by Carrey, holds a scroll over what seems to be a table.'³⁴ But A. H. Smith in 1910 knew better: 'The figure on the left,' he said, 'seems to stand before a table or pedestal (not noted by Carrey). Probably the pedestal was in low relief and inconspicuous. On it was a square box with short legs and open lid (?). The woman appears to be holding up the end of some object, drawn by Carrey like a scroll. There can, however, be no doubt that the fragment . . . No. 364 . . . belongs to this place, and the object represented is thick cloth.'³⁵ Smith's illustration shows the extant fragment inserted. I suggest that the attendant is unrolling the bride's *stróphion* or 'breast-band,' which she has just taken from an open casket—a box like the small bronze jewel-case found recently in Samothrace³⁶ or other little chests cited by Miss Richter.³⁷ If so, the action recalls a scene in the *Thesmophoriázousai*, where Mnesilochos posing as a woman says to Euripides:

'Gird me at once. Now then up with the breast-band!'³⁸

The unrolling of the *stróphion* is a favourite subject in small Hellenistic bronzes, which were probably meant to portray Aphrodite putting on her *kestós*.³⁹ And the juxtaposition of casket and band is common enough in the toilet-scenes of late Greek vases.⁴⁰ As to the attendant on the right, amply draped in *schistós péplos* and *himation*, she grasps in her hand a utensil of doubtful shape, possibly an *alabastron* or perfume-vase, possibly the handle of a mirror. In any case it may, I think, fairly be concluded that metopes xix and xx represent the decking of the bride.

Greek wedding customs varied from place to place and from time to time. But we happen to know from a passage in the comedian Theopompos⁴¹ that at Athens in the fifth century a shower of sweetmeats (*katachýsmata*) was poured over the bridegroom and his bride—an amiable practice like our own scattering of rice and confetti. It may be that the girl holding an open basket and its lid on metope xiv was about to scatter largesse in this way. To me at least that sounds more probable than the notion that her basket contained the infant Erichthonios, curled round like a collar in a collar-box!

The only other attribute that gives us any clue to the general situation is the queer-

³² E. Curtius in the *Arch. Zeit.* 1883 xli. 351 ff. pl. 18 (Roscher *Lex. Myth.* iii. 1771 f. fig. 2).

On the British Museum *kratér* no. F 722, a late vase of 'Apulian' style, novelties are attempted. Peirithoös' bride, here named Laodameia, wears a long transparent Ionic *chiton*; the woman on the left, a Doric *péplos* with small *himation*; the woman on the right, a Doric *péplos* (*Mon. Ann. e Bull. d. Inst.* 1854 pl. 16, Roscher *Lex. Myth.* iii. 1773 f. fig. 4).

³³ G. Treu in *Olympia* Berlin 1894-1897 iii. 77 and 135 (O*).

³⁴ A. S. Murray *The Sculptures of the Parthenon* London 1903 p. 58.

³⁵ A. H. Smith *The Sculptures of the Parthenon* London

1910 p. 33 fig. 57.

³⁶ K. Lehmann-Hartleben in the *Am. Journ. Arch.* 1940 xliv., 349 fig. 28.

³⁷ G. M. A. Richter *Ancient Furniture* Oxford 1926 p. 95 ff. figs. 236-241.

³⁸ Aristoph. *Thesm.* 255 σύζωσον ἀνύσας. αἰρέ νυν στρόφιον.

³⁹ Caylus vi. 238 pl. 71, 3 f., Clarac iv pl. 626, 1407, Müller-Wieseler *Denkm. d. alt. Kunst* ii. 3 no. 282. See further J. J. Bernoulli *Aphrodite* Leipzig 1873 pp. 344-348.

⁴⁰ Reinach *Rép. Vases* ii. 9, 216, 240.

⁴¹ Theopomp. com. 'Ἡδύκαρος frag. 3 ap. schol. Aristoph. *Plut.* 768. φέρε σὺ τὰ καταχύσματα | ταχέως κατὰ χειρὸς τοῦ νυμφίου καὶ τῆς κόρης. | B. εὖ πάνυ λέγεις.

looking object carried by another fully draped woman on metope xvii. An extant fragment (No. 377) makes it certain that this box-like thing was in reality the base of a *phórminx* or large lyre supported on a broad strap passing round the back of the wrist.⁴² The player, then, was a female lyrist. And if we ask what she was doing *dans cette galère*, we may remember that a similar harp-player figures in the Aldobrandini Wedding.⁴³ The woman player is there seen against a background of light blue. In other words, she is outside the house, taking part in the bridal serenade. So far as it goes, this confirms our impression that the central Parthenon metopes were all essentially concerned with the marriage of Peirithoös.

It must not, however, be supposed that the amenities of the bridal bower were immediately contrasted with the rough-and-tumble outside. Our sculptor had more *finesse*. He contrived a perfectly natural transition by making the tidings of the tumult break in upon the central calm. And he did so in true Pheidias style. In the East Pediment the great news of Athena's birth radiates outwards from centre to angle, being brought by the hastening damsel Eileithyia to the seated Demeter-and-Persephone, who have not yet heard it, and to the recumbent Dionysos, who with complete indifference is looking the other way.⁴⁴ Here the news passes inwards, being brought by the two hastening women of metope xviii to the bride of metope xix, who is still quite unconscious of the fight. The principle is the same in both cases. There is no crude juxtaposition, but one scene simply overflows into another with a tranquil fusion which almost recalls the dissolving views of mid-Victorian days.

Some critics have complained that this consistent and harmonious picture is utterly ruined by the inclusion of metope xv. Artemis in a two-horse chariot seems strangely out of place either at the Centaurs' brawl or at the bride's toilet. Picard, usually the sanest of men, is reduced to saying that this is not Artemis at all, but Athena inventing the first chariot!⁴⁵ Athena in her own town, on her own temple, without helmet or spear or shield or aegis? That might be so in an archaic terracotta, but hardly in a fifth-century marble. Besides, if so, we should be back again in the old difficulty of mixed mythological motives, and confusion would become even worse confounded. No, we shall certainly do better to follow the lead of the early exponents, A. S. Murray⁴⁶ for instance, who explained metope xv by connecting it with metope xxi. Two Lapith women, one distressed and apprehensive, the other already half-stripped by the brutality of the Centaurs, have fled for protection to the stiff impassive image of their goddess Artemis. Meantime Artemis herself, anything but stiff, anything but impassive, has heard their cry and is well on her way to help them. This interpretation of the scene is put beyond doubt by its repetition on the Centaur-frieze at Phigaleia,⁴⁷ where again we see the two Lapith women in their hour of anguish clinging to an old-fangled effigy of Artemis, and Artemis herself in a chariot drawn by stags speeding with Apollon to their rescue.

Two reflections and I have done. It is interesting to find that the myth of the Centauro-machy involved certain features which have been lost in literature, but preserved in art. More often it is the other way about. The learned tribe of mythographers—Apollodoros, Diodoros, Ovid, and the rest—tell the story with much variety of detail, but never mention the bitter plight of the Lapith women or the sudden help sent to them out of heaven. Such a reversal of their fate is dramatic rather than epic, and it may be that the end of the story was taken from some fifth-century play—a tragedy by Phrynichos or Aischylos—in which the human turmoil was quelled by the timely speech of some *theòs apò mechanés* or the glittering vision of gods on the *theologeion*. Is not this the real explanation of that grand central figure of Apollon in the West Pediment at Olympia? Huge in his stature and immense in his significance, he silences the seething crowd *maiestate manus*⁴⁸ and imposes the will of heaven on the struggling sons of men.

⁴² A point satisfactorily established by A. H. Smith *The Sculptures of the Parthenon* London 1910 p. 33 fig. 56.

⁴³ B. Nogara *Le nozze Aldobrandine* Milano 1907 p. 21 with n. 5 pl. 7.

⁴⁴ Zeus ii pl. xxxiii, iii pl. lviii, 3.

⁴⁵ C. Picard in the *Manuel d'archéologie grecque: La sculp-*

ture Paris 1939 ii. 404 n. 1.

⁴⁶ A. S. Murray *The Sculptures of the Parthenon* London 1903 p. 55.

⁴⁷ A. H. Smith *Cat. Sculpt. Brit. Mus.* London 1892 i. 280 f. nos 523, 524, Reinach *Rép. Reliefs* i. 223 nos 2, 3.

⁴⁸ Pers. sat. 4. 8.

Lastly, observe that epiphanies of this sort were no mere theatrical devices invented by ingenious playwrights to shorten or clarify their plots. Behind the poets lay popular belief. The Greeks from Homer downwards had put faith in the visible intervention of gods and heroes, who in times of crisis were at hand to help their own. Thus at Marathon Echetlos was seen doing doughty deeds with his plough: ⁴⁹

‘The clown was ploughing Persia, clearing Greek earth of weed,
As he routed through the Sakian and rooted up the Mede.’ ⁵⁰

At Salamis the Aiakidai appeared as armed men coming from Aegina with hands outstretched to protect the Hellenic triremes. ⁵¹ ‘They will have it too,’ says Pausanias, ‘that the dead Aristomenes was present at the battle of Leuktra, and they declare that he helped the Thebans and was the chief cause of the disaster that befell the Lacedaemonians.’ ⁵² Examples could of course be multiplied, for such faith dies hard. Not many months ago the Greeks, true to their immemorial tradition, were asserting that Saint Spyridon and Saint Artemidoros had gone to strengthen the battle-line and break the Italians in Albania.

But I must not dwell further on the mythological interest of our missing metopes. The main point is this. All their definite and identifiable figures fall into place on the simple assumption that the central theme was the marriage of Peirithoös. And I submit that the head of his bride Hippodameia has in a sense survived for us to see and discuss to-day.

ARTHUR BERNARD COOK.

⁴⁹ Paus. 1. 15. 3, 1. 32. 5.

⁵⁰ Browning *Echetlos*.

⁵¹ Plut. *v. Them.* 15.

⁵² Paus. 10. 32. 4.

NEW LIGHT ON THE FAÇADE OF THE TREASURY OF ATREUS

IN letters written to me during February, March, and April, 1941, Prof. A. J. B. Wace has briefly described and illustrated with small photographs important fresh evidence for the reconstruction of the façade of the Treasury of Atreus, derived from fragments which came to light when the Mycenaean storeroom in the National Museum at Athens was recently cleared and rearranged. The examination and interpretation of these fragments were the joint work of Prof. Wace and the Director of the Museum, Dr. Sp. Marinatos, with whose permission the following account is published. It is closely based upon Prof. Wace's own words, but neither manuscript nor proofs could be submitted to either scholar, and I am responsible for any misunderstandings that it may contain. The phrase 'B.M. Cat.' means 'Catalogue of Sculpture in the Department of Greek and Roman Antiquities of the British Museum, Vol. i, Part i, Prehistoric and Early Greek, by F. N. Pryce, 1928.'

It should be remarked at the outset that there are at Athens many more fragments from the façade than are recorded in B.M. Cat.: 'We have,' writes Wace, 'heaps of bits of the columns, of the red spiral frieze, and of the red Mycenaean triglyph frieze, etc.'; also that all suggestions must be provisional until the new material has been compared with casts of the fragments in other museums, and until the actual façade has been re-examined with scaffolding and all dowel-holes, etc., exactly measured and drawn. It may even be possible to find new fragments on the spot.

For the large half-columns the only change suggested is 'the possibility that between column and capital there intervened a collar not very high and with a beaded ornament round its edge.' Such collars definitely existed in the small half-columns described below, and illustrated in figs. 1 to 5, and one fragment of a collar may belong to one of the larger half-columns. Wace remarks: 'Columns on the ivories from Mycenae and in some Cretan representations seem to have such collars.'



FIG. 1.—FRAGMENTS OF SMALL HALF-COLUMNS.



FIG. 2.—FRAGMENTS OF SMALL HALF-COLUMNS.



FIG. 3.—FRAGMENTS OF SMALL CAPITALS.

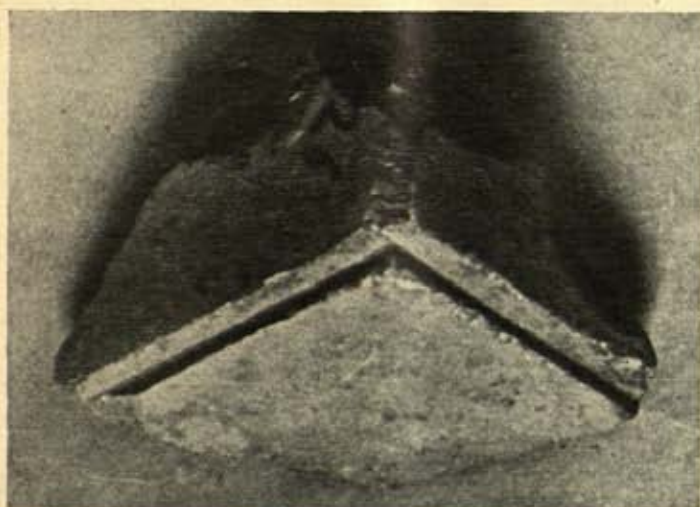


FIG. 4.—FRAGMENT OF SMALL CAPITAL.



FIG. 5.—FRAGMENT OF SMALL COLLAR.

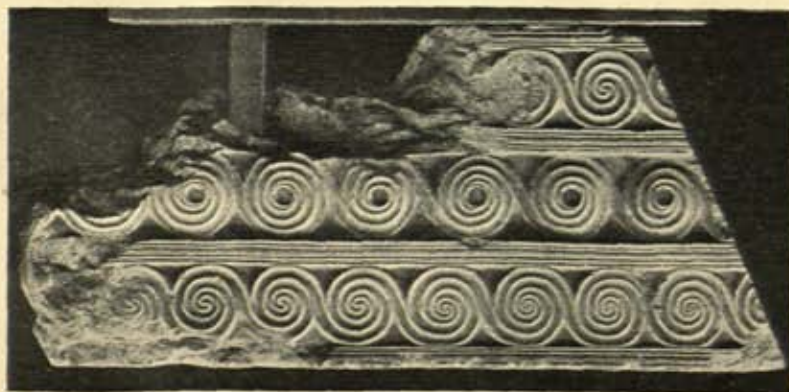


FIG. 6.—SLAB FROM THE RELIEVING TRIANGLE.

He goes on: 'Above the capitals came, of course, the two big square plinths which rest on the ends of the lintel, since they are built into the façade and projected out so as to cover the whole of the top of the capital. These blocks are now broken at their outside edges, but they still exist, and their purpose is plain. On them stood, we believe, two other half-columns, smaller, of course, and shorter than the big ones below. They had the lower fifty centimetres undecorated and above that carved ornament similar to that of the big half-columns, but going round and not up and down zigzag fashion (see figs. 1 and 2). There are some tall stone lamps decorated rather like this. The small half-columns had capitals similar to those of the big ones (see figs. 3 and 4), and collars (see fig. 5). They would have stopped just below the projecting row of slabs at the top of the façade which makes a kind of cornice.' As a parallel to these small half-columns Wace points to the rectangular pilasters directly above the big half-columns which flank the door of the Tomb of Clytemnestra.

For the relieving triangle Marinatos and Wace accept the usual view that it was filled with slabs of triple parallel bands of spirals in red stone, illustrated in fig. 22 of B.M. Cat. ('A 53') (see Fig. 6), but they suggest that 'between the triple bands were inserted plain slabs of red stone.' These would have matched certain plain slabs, described below, which on other grounds they wish to assign to the spaces left and right of the triangle, and the new suggestion about the filling of the triangle is based on the fact, obvious in B.M. Cat. fig. 22, that 'the slabs of red stone with spirals have three spiral bands which are framed in mouldings, and so, if you put two slabs one above the other, you could get two mouldings after every third row, which would look odd. So we suggest a plain band of stone after every third row. The rows clearly go in threes, if you look at the B.M. piece.'

'Between the square blocks or plinths above the capitals of the big half-columns there ran along the top of the lintel a band of beam-end ornament (there is a piece with this pattern still in situ in the corresponding place in the Tomb of Clytemnestra), and above it a spiral band: these two exist together in the British Museum (see B.M. Cat. Fig. 23 = 'A 54'). Above this would probably have come a band of the Mycenaean triglyph ornament in red stone, which would have run right across the bottom of the relieving triangle where the sides are vertical not oblique.' (For all this more detailed evidence will be found in *BSA* XXV, 342 ff.)

'When we have used up all this, there is not much left in the way of decoration to put on the façade—a few bits of rosettes and spirals—but there are pieces of slabs of red stone and of variegated stone (a sort of conglomerate but pinkish), and we suggest that the rest of the façade was covered with slabs of these with bands of rosettes and spirals intervening.' (The connection of this suggestion with that made for the filling of the triangle is pointed out above.)

Wace concludes: 'We considered the possibility of putting the gypsum bulls in the British Museum (B.M. Cat. Figs. 25, 26 = 'A 56,' 'A 57') one on either side of the relieving triangle, but we do not think there would be room, and also they would look loathsome up there. If the gypsum bulls belonged to any beehive tomb, they are in my opinion more likely to have belonged to the Tomb of Clytemnestra, which has gypsum, than to the Treasury of Atreus, which has no gypsum.'

In connection with the remark in B.M. Cat. p. 27 that the 'fact . . . that they [the bulls] are of the material peculiar to Knossos, gypsum, places their Knossian origin almost beyond doubt,' Wace writes that Marinatos informs him that gypsum 'grows in Kephallenia and so does not necessarily come from Crete.'

D. S. ROBERTSON.

HESIOD'S 'SHIELD OF HERAKLES': ITS STRUCTURE AND WORKMANSHIP

[PLATE II.]

WHAT follows is an attempt to interpret the Hesiodic *Shield of Herakles* by the same method as I have used elsewhere¹ for the 'Shield of Achilles.'² Long ago Brunn attributed obscurities to interpolation, mixed the zones, and allegorized; but nevertheless perceived that a real composition was in the poet's mind.³ Studniczka endeavoured to prove that the shield which Hesiod described was a real shield.⁴ But to support his theory he had to manipulate the text; his positive evidence was weak; it was, indeed, too soon for such an enterprise, and perhaps it is too soon still; and what was known then about archaic Greek art led in another direction. Recently, Mr. R. M. Cook⁵ has argued that while parts of the description of Herakles' shield were based, in subject and in phrasing, on the Homeric 'Shield of Achilles,' most of the other parts had parallels, sometimes very close, in archaic Greek art; and at a meeting of the Hellenic Society on 3rd May, 1938,⁶ he supplemented this argument with illustrations. Assuming, not unreasonably, that the vase-paintings are fairly representative, he showed that all the required models are to be found within the decade 580-570 B.C., and within the Attic and Corinthian schools. He found no evidence of the influence of Ionia, nor of Chalcis. He noted that these results agree with the view, based on historical and literary arguments 'perhaps inadequate' (I follow the summary circulated at the meeting of 3rd May, 1938) that the poem was written about 575 B.C. by a Boeotian or a Thessalian.

Mr. Cook's date for the Hesiodic *Shield of Herakles* is thus considerably later than the historical date of Kypselos of Corinth, whose famous 'chest' dedicated at Olympia exhibited an even larger collection of traditional figures and scenes. The archaeological background of the 'Chest of Kypselos' was examined in 1894 by Sir H. Stuart Jones, and assigned to the seventh century.⁷

From Pausanias' account of the 'Chest of Kypselos' we know not only the subjects of the scenes, but also the arrangement of them on four $\chi\omega\rho\alpha\iota$ or horizontal zones; and from extant Corinthian bronze-reliefs we know in detail how such scenes were combined into a large composition, and separated by decorative bands and frames. We know, further, that some of them were 'statical' groups of figures, confronted, or otherwise balanced; and that others formed 'kinetic' friezes, the figures of which move to right or to left, either without objective, or towards somebody or something which 'closes the scene' while explaining the purpose of the movement.⁸

The description of the 'Throne of Apollo' at Amyclae supplies many subjects both statical and kinetic; but the general construction of the 'throne' itself is obscure, and the arrangement of the subjects upon it uncertain; Paus. III, xviii, 7-19.

As Mr. Cook's date depends on the congruence of the subjects on the 'Shield of Herakles' with those of painted vases of a limited period, and from two great centres of production only, it must be noted, first, that though the subjects on the 'Chest of Kypselos' are mainly represented in the same schools of vase-painting as Mr. Cook has indicated for the 'Shield,' yet between the 'Chest' and the 'Shield' there are only two group-subjects in common—Apollo with the Muses, and Perseus with the Gorgons—and only three of the emblematical figures—Eris, Kêr, and Phobos; and further, that of these three, Eris and Kêr occur also on the 'Shield

¹ *Who were the Greeks?* (Berkeley, 1930, pp. 517-523).

² *Iliad* XVIII, 430-606.

³ Brunn, *Griechische Kunstgeschichte*, I, 1893, p. 85.

⁴ *Serta Harteliana*, 1896.

⁵ *Classical Quarterly*, XXXI (1917), 204-14.

⁶ Reported briefly in the *Society's Annual Report*.

⁷ *JHS* XIV (1895), pp. 30-80, pl. i. Payne, *Necrocorinthia* 1931, assigns it to the first (p. 351) or the second quarter (p. 125) of the sixth century.

⁸ Examples:—statical (frieze 2 from top), monster (to left), Apollo and Artemis, winged goddess with lions; kinetic, (top frieze) Centaurs, chariots; (bottom) Perseus and Gorgons.

of Achilles' in *Iliad* XVIII, which I do not suppose that Mr. Cook would assign to 580–570 B.C. in spite of the large common element in the Homeric and Hesiodic versions of the 'Tale of Two Cities.' What emerges is simply that both drew their subjects from a repertory so copious that what would need to be specially explained is any appreciable repetition. If Mr. Cook could prove that these subjects were not in vogue at all, outside certain limits of date, his argument would be stronger than it appears to me now to be.

There is the further consideration that the occurrence of a particular list of representations on Greek vases—which were for popular use among Greeks—does not prove that they had not been for some time current in tradition, represented on other kinds of objects not intended for common use, though fashioned by Greek craftsmen. The fearsome monsters common to the 'Shields' of Herakles and of Achilles are derived from a foreign Oriental repertory which has a long history. Mr. Cook's argument, indeed, proves as much, or as little, about the antiquity of these, or of traditional designs popularly identified with them by Greeks, as the occurrence of the 'willow pattern,' on English dinner-plates of the late eighteenth century, proves about the antiquity either of the Chinese legend, or of Chinese representations of it.⁹

Mr. Cook's argument, however, deals with the subjects of the separate scenes, not with the arrangement of them on the 'Shield,' nor with the general composition of the design and appearance of the 'Shield' as a whole. It will therefore supplement what he has established, as well as present constructively an alternative source of inspiration, and alternative date for the poem, if I begin from this other standpoint—namely, the conception which the poet appears to have formed of what he clearly regarded as a superb and elaborate example of a class of object familiar to himself and to his public.

Materials for such a reconstruction are: (1) precise literal rendering of the Greek text, and close study of every detail, especially of those phrases which previous commentators have misunderstood and therefore expunged; (2) comparison with Homeric descriptions of the Shield of Achilles, the shield and other armour of Agamemnon, and the sword-belt of Herakles, and with Pausanias' account of the Chest of Kypselos, seen by him at Olympia, and ingeniously reconstructed a generation ago by Stuart Jones (see note 7): in all these passages, also, significant details have been recovered by precise rendering of the texts; (3) comparison with the technique, both of composition and of execution, of early Greek bronzes, such as the Cretan shields from the Idaean Cave and from Palaikastro; and of contemporary Oriental shields, and of other engraved metal-work, especially those bowls of silver and bronze, found on many sites, from Nimrud and Cyprus to Caere and Praeneste, and commonly attributed to Phoenicia or to Cyprus. The chronology of these is now sufficiently established to suggest an upward limit for the poem, in so far as its imagery has been inspired by any of them.

In the first place, like the 'Shield of Achilles' in *Iliad* XVIII, the Hesiodic 'Shield of Herakles' is no modern 'service-issue,' but belongs to the heroic past. And the glimpses in the *Iliad* of technical processes, and of peculiar forms of vessels and other objects, which were actually in use at a distant period, and are not known to have been in use later, show either that descriptions of them became traditional, or that, from time to time, chance revealed ancient masterpieces, and poets celebrated them.

The whole question of 'archaism' in early art and literature is difficult. Usually an artist—whether poet or craftsman—presents historical or legendary scenes with the material accessories familiar to himself and his public. But it is quite compatible with this that an artist may encounter, appreciate, and attempt to reproduce in his own medium—either verse or paint—an object of ancient or exotic workmanship, which he regards as ἀξιοπληγνόν—'worth while.' Herodotus may have made mistakes in his description of the Egyptian labyrinth (II, 148) or the Kadmeian tripods (V, 59); but no one doubts that he had seen and studied Egyptian buildings, or that he habitually visited Greek sanctuaries and pondered over the votive objects in them.

⁹ For the origin and history of one of these monsters, see Frankfort, 'Notes on the Cretan Griffin,' *BSA* xxxvii, 106–122.

That the Hesiodic composer of the Shield of Herakles had seen somewhere what was described to him as 'Herakles' Shield', need not, I think, be contended seriously. That he is trying to describe to his public, on a magnificent scale, such a work of art as befitted his hero, may, however, be presumed for him, as for the composer of *Iliad* XVIII. That there were such compositions, in various materials, is clear from the 'François Vase,'¹⁰ from Pausanias' description of the 'Chest of Kypselos' in cedarwood and ivory,¹¹ and of the 'Throne of Apollo' at Amyclae;¹² from the bronze shields of the Idaean Cave in Crete;¹³ and from the long series of engraved bowls found on sites as wide apart as Nimrud¹⁴ and Cyprus, Caere and Praeneste,¹⁵ some almost purely Egyptian in style and subjects, others, such as the 'Amathus Bowl,'¹⁶ and the 'Hunter's Day' from Praeneste,¹⁷ passing over from a 'Mixed Oriental Style' into a vivid naturalism reminiscent of the Homeric and Hesiodic 'Tale of Two Cities.'

Objects of all these kinds, with copious repertory of symbolic figures, animals, exotic or familiar, and scenes of daily life, were within the experience of an early Greek composer, even if he had not travelled far, and—which is no less important—of his public. People who knew what fighting meant, knew what a fine shield looked like, and were prepared to enjoy and appreciate a description of either, as we enjoy and appreciate a 'documentary' film. A much later example than either of the epic *Shields*, is Aeschylus' description of the champions' shields in the *Seven against Thebes*, written for a generation whose own shields bore the simpler blazons familiar from fifth-century vase-paintings: compare the description in the *Ion* of Euripides of the sculptures on the Temple at Delphi.

Now, a literary description, like a film, is presented in an order of time; it has 'a beginning, a middle, and an end.' You cannot describe a shield in a 'part-song' or a 'catch,' middle and sides simultaneously. Pausanias begins his account of the 'Chest of Kypselos' at the left-hand end of the lowest of four rows of figures, and returns along the next row from right to left, and so on. In *Iliad* XVIII the 'Shield of Achilles' begins with the broad central surface, treated as the firmament, and literally 'studded' with sun, moon, and stars. Somewhere and somehow, this central area was bounded by earth and sea, presumably circumferential. Contrast the silver bowls from Nimrud,¹⁷ on which the earth is central, and the mountain peaks are silhouetted around its margin against the all-embracing sky, which is full of deities or has a zone of animals and trees. Somewhere, then, on *terra firma* was represented the long sequence of scenes which I have discussed in detail elsewhere,¹⁸ suggesting that their arrangement shows them to compose four 'kinetic' friezes of pageantry and processional

¹⁰ The François Vase at Florence has ten scenes and over 200 figures: *Monumenti IV*, pl. liv–lviii; *Wiener Vorlegeblätter*, IV (1889), pls. 1–5; Reinach, *Répertoire*, pp. 134–7; Perrot, X, pp. 141 ff., figs. 93–110.

¹¹ The 'Chest of Kypselos': Paus. V, xvii, 2–xix, 2, Frazer's edn., III, 606, reconstruction by H. Stuart Jones, *JHS* XIV (1895), pp. 30–80, pl. 1. For other votive shields described by Pausanias see Loeb edn., Vol. X, Index, s.v. 'shield.'

¹² The 'Throne of Apollo' at Amyclae, Paus. III, xviii–xix.

¹³ The 'Idaean Bronzes,' in Candia Museum: Compagetti and Orsi, *Museo Italiano di antichità classica*, II 1888; other fragments in E. Kunze, *Kretische Bronze-reliefs*.

¹⁴ Engraved Bowls from Nimrud, Perrot, II, figs. 398–408; Layard, *Monuments of Nineveh*, Ser. I, pl. 62A; 63, Ser. II, pl. 60, 61B, 66. In Assyrian art we must not overlook the 'embroidered' or (more accurately) 'appliqué' decoration of state-robcs: Perrot, II, figs. 443–5 = Layard, *Mon. Nin.* I, pl. 9.

¹⁵ Engraved bowls from Cyprus, Italy, and elsewhere: Perrot, III, figs. 543–56.

Fig. 543, the 'Hunter's Day' (Bernardini Tomb, Caere). Fig. 544, from Caere: lion centre-piece. Grifi, *Mon. di Caere antica*, pl. v, 1.

Fig. 546, from Dali (Louvre): e.g., king: κῆρυξ and victims: 1 tree: fights (one extra-large). Longpérier, *Musée Napoléon*, III, pl. xi.

Fig. 547, from Amathus (now in B.M.), *JHS* LIII, pp.

25–39, pls. i–iii.

Fig. 548, from Dali (Louvre): diaper/lotus/lotus/sacred trees: fights: procession (camel: chariot), many birds. Longpérier, pl. ix.

Fig. 549 (cf. 551 detail), from Caere. Grifi, *Mon. di Caere*, pl. viii, 1; ix (detail): / frieze of horsemen and chariots.

Fig. 550 (Varvakeion; perhaps from Olympia), four scenes, with pilasters and Isis figures between. Euting, *Mém. Acad. Sci. St. Petersburg*, VII, Ser. xvii, 3 (1873), p. 33, pl. xi.

Fig. 552, from Curium (N.Y. 4554): Ceccaldi, pl. X, Assyrian medallion / Eg., scenes / deities, trees and animals; N.B.—Eg. king killing enemies, no longer as centre-piece.

Fig. 553, cow and calf medallion. Caere. Grifi, *Caere*, pl. x, 1.

Fig. 554, bowl from Caucasus (? Lake Van), B.M., lotus design.

Pp. 790–1, cup from Carnirus (B.M.), rosette and wreath of leaves/cartouches on gold plaques.

Figs. 555–6, bronze crater rim from Curium; bulls of rim: monsters with jugs, on handle.

Fig. 482, from Dali: Ceccaldi, pl. vii, Perrot, III, figs. 180–1.

¹⁶ Myres, *JHS* LIII (1933), pp. 25–39, pl. i–iii.

¹⁷ Perrot-Chipiez, II, figs. 406, 408; = Layard, *Mon. Nineveh*, Ser. II, pl. 61, 31, and pl. 66.

¹⁸ Myres, *Who were the Greeks?* Berkeley, 1930, pp. 517–23.

chrome enamels for a prince of Cyprus, we know from the sceptre-head in the Cyprus Museum,²⁵ though its date is uncertain.

The 'Sword-belt of Agamemnon' (*Il.* XI, 38-40) completes this panoply of masterpieces. Presumably backed with leather or linen, it appeared to be of silver, 'and over it was coiled a snake of *kyanos*, whose three heads sprang from one neck,' probably to enhance the fastening. On the gold-plated 'Sword-belt of Herakles' (*Od.* XI, 610-12), there are both animals (bears, boars, and lions) and battle-scenes, as on the Hesiodic *Shield*; but no hint is given of their arrangement. Comparison with our text, and the greater and less significance of the two kinds of subjects, suggest that there was a major zone of human groups, with a subordinate zone, or perhaps a double border, of animals, like zone I of our *Shield*.

I have dilated on the details of these pieces because they illustrate even more emphatically than the 'Shield of Achilles' in *Iliad* XVIII, both the ability of the composer to render fine metalwork in epic verse, his undisguised enjoyment of it, and his confidence that an audience will enjoy both his skill and his subjects, since they belong to the world of their own military and technical experience. The contrast suggested by Schwarz between the 'Shield of Achilles' *ante oculos nascens*, and the 'Shield of Herakles,' *artificium iam perfectum sibi describendum* is less significant in view of these descriptions of *artificia iam perfecta*. A Homeric poet could work in either style.

Turn now to the Hesiodic *Shield of Herakles*. Though details (*Il.* 213-22, 243) indicate that the Shield was of bronze—or, rather, plated with bronze, for solid metal would have been over-weight—the poet is lavish of other-coloured materials; gold (142), silver (183, 187, 212, 225), electron (142, whether the alloy, or inlaid amber, is not clear), ivory (141), *kyanos* (143), *titanos* (141, a white substance, perhaps the white 'meerschaum' steatite used for seal-stones and beads) and 'adamant' (231) in its early sense of 'steel'. In 231 the Gorgons tread ἐπὶ χλωροῦ ἀδάμαντος; in 128 the sword of Herakles is ἀρῆς ἀλκτῆρα σίδηρον, in 137 his κυνέη is ἀδάμαντος and in 141 *Schol. vet.* 40 (Ranke) gives ἀδάμαντος for δράκοντος against all manuscript evidence. In *Theogonia* 161 Gaia ποιήσασα γένος πολιοῦ ἀδάμαντος/τεῦξε μέγα δρέππανον, where the epithet πολιοῦ, characteristic of iron and steel, makes the meaning certain: χλωρὸς (231) means not 'green' but 'pale,' in contrast with the complexion of bronze which is that of a healthy Greek and his statues. No passage earlier than Theophrastus *Lap.* 19 (44) is inconsistent with the meaning 'steel' here, as the hardest metal known²⁶: and the later meaning—'emery' and its noble varieties—is not supported by the Hesiodic epithets: cf. Ridgeway, *Encyclopaedia Biblica*, I, s.v. ADAMANT. Though the helmet in 136-7 is εὐτυκτον, a steel shield-boss wrought in high relief is improbable: if ἀδάμαντος was ever written in 141, it had wandered from 137. In 231 the Gorgons tread on the surface of the shield itself: of steel though this section was, it rang under their footfall.

As Flach has ejected (143), we must look carefully at its wording:—κυάνου δὲ διὰ πτύχες ἤλθλαντο. In *Iliad* XX, 269-72 (cf. XVIII, 481) πέντε πτύχας of Achilles' shield are commonly explained as 'layers' of bronze, silver, and gold. Schwarz (p. 43) compares πτύχες here with Agamemnon's οἶμοι (*Il.* XI, 24) and quotes Diaconus (par. p. 625, Gaisford) συρμάδες δὲ μέλανος <κυάνου> διὰ μέσου τοῦ χαλκοῦ ἐγγεγραμμένοι ἦσαν. In modern Greek σύρμα means a 'wire'; but it was also a medical term for a wound where the skin has been pulled off, resembling the groove prepared to receive an inlay; and this is the probable meaning of πτύχες here. As the target-like decoration of a shield in concentric zones originates in the overlap of concentric layers of leather, or metal plate, the use of πτύχες for concentric bands of inlay is intelligible: and it may not be wholly accidental that the 'Shield of Herakles' with its five zones needed five such bands like those of the 'Shield of Achilles.' Note, however, that Pindar, *Ol.* 1, 105, has ὕμναν πτυχαί for 'sinuous' words or melody, and that Euripides,

²⁵ Casson and Myres, *Man*, 1932, 1-3.

²⁶ L. & S. quote Plato, *Timaeus* 59 b. *Politicus* 303c; but in *Politicus* ἀδάμας is coupled with gold, silver, and bronze,

ἃ μετὰ βασάνων ταῖς ἐψησεῖ μογὶς ἀπαρηθέντα . . . and you cannot refine a diamond with either touchstone or crucible: in *Timaeus* it is χρυσίου ὄξος, dense, hard, and black.

Suppl. 212, has κατὰ σπλάγγων πτυχάς: so coil, spiral, or plait (guilloche) ornament is not excluded, such as archaic bronzeworkers used to frame their χῶραι.

The decoration of the Hesiodic 'Shield' consists of a centre-piece (144-167) enhanced by symbolic figures in the manner of the Idaean lion-shields and eagle-shield, and of the similar lion-shield from Palaikastro.^{26a} As the description ends with an Ocean-stream (314-16), the rim was continuous and probably circular. A 'Boeotian' shield with interrupted

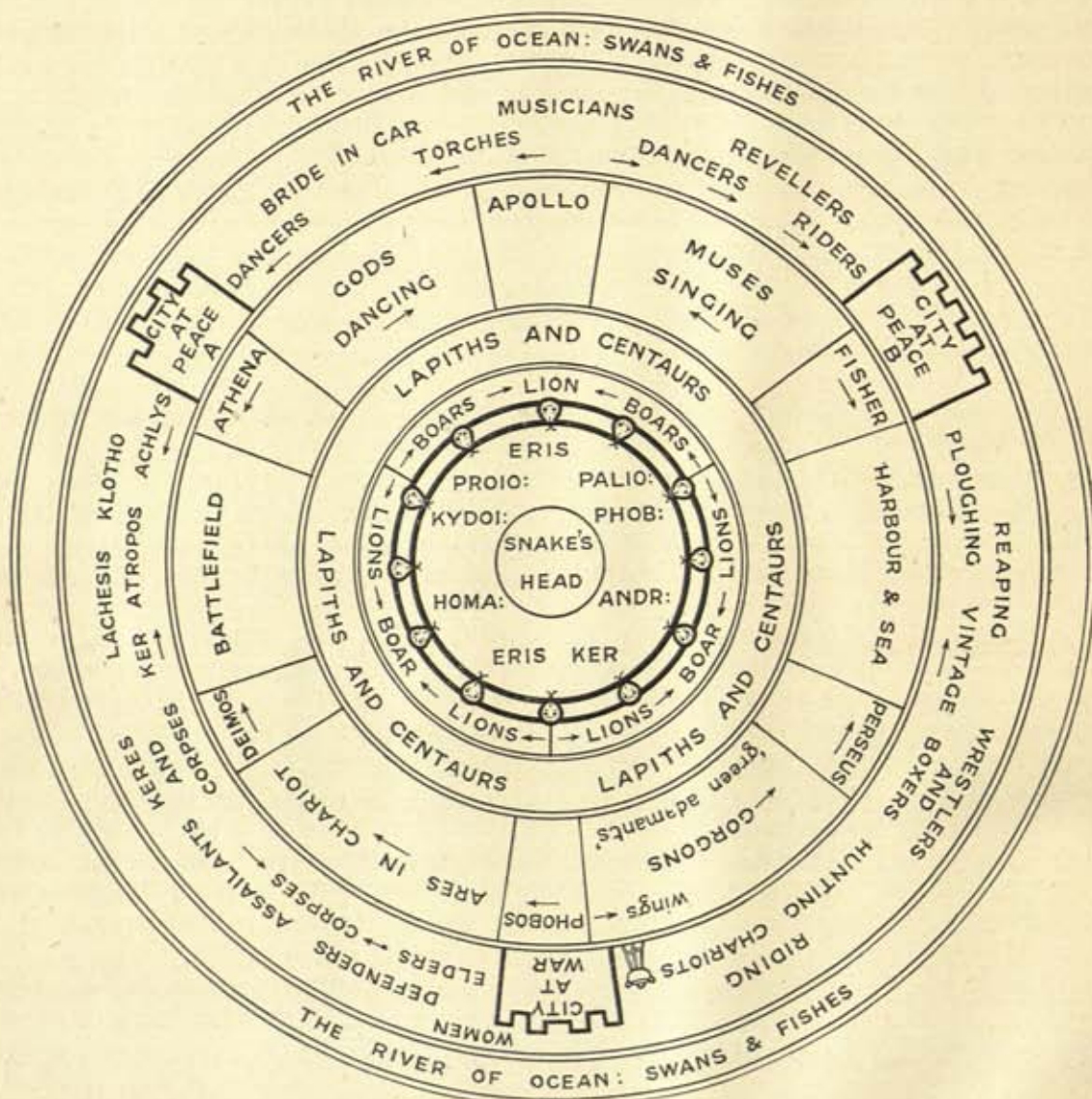


FIG. 2.—DIAGRAM OF THE SHIELD OF HERAKLES.

rim is out of the question; and this simplifies the interpretation of the numerous scenes which occupy the space between centre-piece and circumference. These fall into five categories, and are described in this order: (1) lions and boars (168-77); (2) Lapiths and Centaurs (178-90); (3) mythological scenes (191-237) with one episode of daily life, the harbour and fisherman (207-15), and indication also of a terrestrial battle into which Athena and Ares are entering; (4) a 'Tale of Two Cities' (237-313), like that on the Homeric 'Shield of Achilles,' including as in the Homeric battle-scene (*Il.* XVIII, 535-40) a group of symbolic monsters,

^{26a} Kunze, no. 1, pls. 1-2 (eagle); nos. 3, 4, 9, 10, 11, 12-16, pls. 4, 6, 25, 26, 28, 29 (lions); no. 8, pls. 21-3 (Palaikastro, boss destroyed).

and also the Three Fates (248-70); (5) the river of Ocean, with swans and fishes, forming the rim of the shield. This distinction of categories, and the graphic phrase about the warriors set 'above' the Gorgons (237, v. below, p. 27), shows that the scenes were in five zones, like the *χωραί* on the 'Chest of Kypselos,' but in concentric sequence from centre-piece to rim; and it is in this order that they are described.

The centre-piece (144-60) is a serpent (*δράκων*)²⁷ accompanied by symbolic figures, the forms and arrangement of which are not easy to understand. As nothing of the snake is described except the eyes, teeth, and brow, probably only the head was represented, like the heads on shields drawn in profile on Attic vases, and preserved on some of the finest of the Idaean shields.²⁸ Only in this prominent position could the creature 'look backwards,' *ἐμπαλιν δεδορκώς*—that is, seen from in front, the eyes looked right and left, not forward.²⁹ Only in this position also could it be said that *ἐπὶ βλοσυροῖο μετώπου δεινὴ ἔρις πεποτᾶτο*, flying towards³⁰ the forehead, or—since a snake has no forehead—towards the top of the head—that



FIG. 3.—ORIENTAL TEMPLE SHOWING VOTIVE SHIELDS WITH LION-HEAD BOSSES.

is to say, hovering downwards above it on the surface of the shield, like the winged deity on the 'Hunter's Day' bowls from Praeneste and Cyprus. In what guise Eris was represented, either here or in l. 155, or elsewhere (*Il. XVIII*, 535) is not stated, except that the figure had wings, and could join with Kydoimos and Kêr to ravage corpses. That there were corpses (or a corpse) here for Eris to ravage is indicated in ll. 148, 151-3. These lines are excised by

²⁷ All MSS. give *δράκων*, but Schol. Vet. 30 (Ranke) has *ἀδάμαντος*. If *ἀδάμαντος* is accepted here, the centre-piece was a *Φόβος*, or the head of such a monster: cf. 155, 195, 237. The argument of Schwartz (p. 43), that you cannot have the head of a snake without its tail, applies equally to a *Φόβος*, and is refuted by the centre-pieces of the Idaean shields, except the eagle, which has both tail and wings.

²⁸ References, note 13 above. An Assyrian relief of Sargon (722-706 B.C.) shows the front of a temple decorated with votive shields (Fig. 3). Three of them, shown in profile, have a complete lion's head as boss (Perrot, II (E.T. vol. i), fig. 190 = Botta, *Monuments de Ninive*, II, pl. 141). This gives an approximate date for the Idaean shield. An actual Assyrian shield of bronze (with concentric *οἰμοί* but no boss) is in the British Museum; Perrot, II, fig. 415).

²⁹ Schwarz (p. 44) quotes Hdt. I, 207, VII, 58, IX, 56; Xen. *Anab.* 5, 7, 6, in support of the view of K. O. Müller and Studniczka that *ἐμπαλιν* means looking straight forward—i.e., facing the observer. But he has overlooked H. Hermes, 77-8, *ἀντία ποιήσας ὄπλᾶς, τὰς πρόσθεν ὀπίσθεν | τὰς δ' ὀπίσθεν πρόσθεν, κατὰ δ' ἐμπαλιν αὐτὸς ἔβαινε*, 'walked backwards.' *Æsch. PV* 202-3: *οἱ δὲ τοῦμπαλιν σπύδοντες*. Hdt. II, 19: *τὰ ἐμπαλιν πεφυκέναι τῶν ἄλλων ποτάμων*, 'has the opposite nature.' Xen. *Anab.* 1, 4, 15, *εἰς τοῦμπαλιν ἀπίνειν*, 'go back the way they came.' Cyr. 8: *τοῦμπαλιν οὐ βούλονται*, 'the reverse of what they wish.'

³⁰ Not *ἐπὶ μετώπῳ* (Schwarz, p. 116, *in fronte*) but *ἐπὶ μετώπου*, like *ἐπ' οἴκου* Hdt. II, 121, *ἐπὶ Χίου*, I, 164. Compare the winged disc below the lion-head centre-piece on an Idaean shield, Kunze, no. 3, pl. 4.

Flach, like other graphic phrases—and Schwarz (p. 46) misunderstands them; but they have only to be rendered literally to be appreciated as elements in the composition. How a Greek artist represented human souls, we know from the 'Harpy Monument,' and from Greek vase-paintings.

In ll. 154–60 are described other symbolic monsters of the same kind as the Φόβος, Ἐρίς, Ἀλκή, and Ἰώκη, which are associated with the Γοργεῖη κεφαλὴ on the aegis worn by Athena in *Il.* V, 739–41: their arrangement is expressed by ἐστεφάνωται, which suggests a decorative zone around the Γοργεῖη κεφαλὴ. In l. 156, *Eris*, *Kydoimos*, and *Ker* are quoted straight from *Il.* XVIII, 535–40. These expressly had their human victims, and justify the attribution of such a victim to the δεινὴ ἔρις of l. 148, where κλόνον ἀνδρῶν suggests that, among the monsters, warriors were represented, as on Idaean shields and that προΐωξις, παλῖωξις, and ἀνδροκτασίη refer to such groups, in advance or retreat: προΐωξις and παλῖωξις amplify the conception of Ἰώκη on Athena's aegis (*Il.* V, 739–41). On the engraved bowls a favourite centre-piece is a medallion showing an Egyptian king destroying his enemies;³¹ sometimes a bound captive (or a soldier carrying a captive) stands behind him, and sometimes there is a prostrate enemy in the exergue.³² Occasionally such an ἀνδροκτασίη is degraded to be an item in a frieze of miscellaneous groups.³³ Similarly, ὄμαδος and φόβος personify the 'hubbub' and 'panic' incidental to warfare. On the 'Chest of Kypselos' the shield of Agamemnon bore a φόβος . . . ἔχων τὴν κεφαλὴν λέοντος; I suggest a central boss, as on Idaean shields, perhaps continued as there by fore-feet in relief below;³⁴ compare the shield of Ares on the François Vase, with a satyr-head as boss; Perrot X, fig. 110. We shall meet with Φόβος again (195), in company with Δεῖμος, escorting the chariot of Ares, as their originals do in the narrative of the fight itself (463) and as (with ἔρις) they assist Athena in *Iliad* IV, 439–45.

These symbolic figures are eight in number; and as we already have a δεινὴ ἔρις hovering above the central snake, that is, at 'twelve o'clock' when the shield is held (or hung) with the snake's 'forehead' uppermost—we have a sequence of nine figures in all. This is in accord with the rhythms (3, 6, 12) of other parts of this 'Shield.' Whether these nine figures with their human victims formed an innermost zone (like the outer frieze of the 'Curium Bowl' or the inner one of the 'Amathus Bowl'), or were disposed in a free field, like the snakes, sphinxes, and other creatures around the centre-pieces of the Idaean shields, there is nothing in the description to show. But so close to the central boss, a frieze or zone, in the strict sense, is almost impracticable; for if the figures were arranged radially, either their inward extremities—heads or feet—would be crowded intolerably. So I suggest that the poet, at this stage in his composing, had in mind a free field like that of the Idaean shields, on which he could set out detached figures or groups as he pleased. Analogous is the central 'firmament' of Achilles' shield, on which sun and moon were set out, and constellations such as Orion and the Bear; like the Bull, Giant, and other symbolic figures on the best-preserved of the Idaean shields.^{34a} It is only outside that firmament, bounded by earth and sea (*Il.* XVIII, 483) that the 'Tale of Two Cities' is displayed in a single circumferential zone. On the other hand, the six recumbent sphinxes on the innermost zone of the 'Amathus Bowl' show how a sequence of monsters could be treated as a zone adjacent to a central medallion.

On the 'Shield of Herakles,' this central area (144–60) is separated from the rest of the composition (168–313) by a design of twelve snakes. Again it is the heads that are essential and conspicuous, as in ll. 145–7; but as these snakes were

κυάνεοι κατὰ νῶτα, μελάνθησαν δὲ γένεια,

their bodies also were represented, back upwards, on the surface of the shield, like the six snakes on the 'Breast-plate of Agamemnon.' But here they formed a guilloche or plaited

³¹ E.g. king centre-piece. Poulsen, fig. 14: 'Hunter's Day' bowl from Praeneste. Bowl from Salerno; Poulsen, fig. 20.

³² Bowl from Salerno: Poulsen fig. 20; from Praeneste, fig. 14.

³³ ἀνδροκτασίη in a frieze. *Hdbk. Cesn. Coll.* 4554 = Cec-

caldi, pl. x.

³⁴ Paus. *l.c.* xix.

^{34a} *Il.* XVIII, 485: ἐν δὲ τὰ τέσσαρα πάντα, τὰ τ' οὐρανὸς ἐστεφάνωται, which can hardly mean 'arranged like a στεφάνη.'

band, out of which the twelve heads emerged at intervals. A single snake in high relief is thus used to separate the rim and the outermost figure-zone of the 'Hunter's Day'; six engraved gryphon-heads on long, curved necks surround the central medallion on a bronze bowl from Rhodes (Fig. 4);³⁵ and six snakes' heads, modelled in the round, rise on long necks above the rim of a silver cauldron from the Bernardini tomb at Praeneste (Fig. 5),³⁶ and of another in bronze from Etruria (Fig. 6).³⁷

That these twelve snake-heads were in the round, or at least projected in high relief from the surface of the shield, is indicated by two phrases: (1) the words *μελάνθησαν δὲ γένεια* (167) may be an added detail of coloured inlay like *κυάνεοι κατὰ νῶτα*; but there is no other reference to black colouring in the *Shield of Herakles*, and I suggest that they record observation of an accidental fact—namely, that the undersides of such projecting heads, being the most difficult parts of a shield to keep clean, *became dirty*, and cast a deeper shadow. It is the first of several indications in the *Shield of Herakles* that, while the poet is drawing on his imagination for the shield as a composition, and on his traditional knowledge for its component subjects, he has also studied such ancient shields as came in his way; and that certain features of particular works of art have stuck in his mind. His more observant hearers had the same opportunities: not all temples were so well tended as Delphi by the boy Ion.

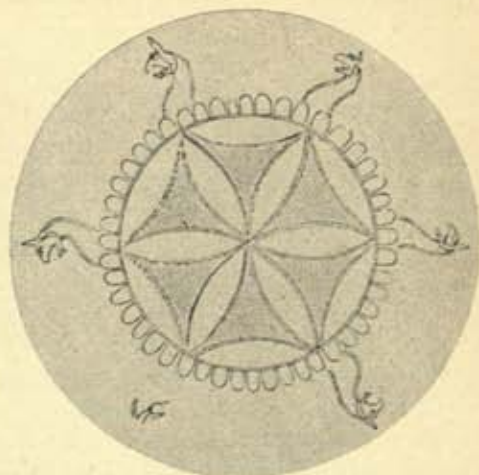


FIG. 4.—CENTRE OF BRONZE BOWL FROM RHODES.



FIG. 5.—SILVER BOWL FROM PRAENESTE.

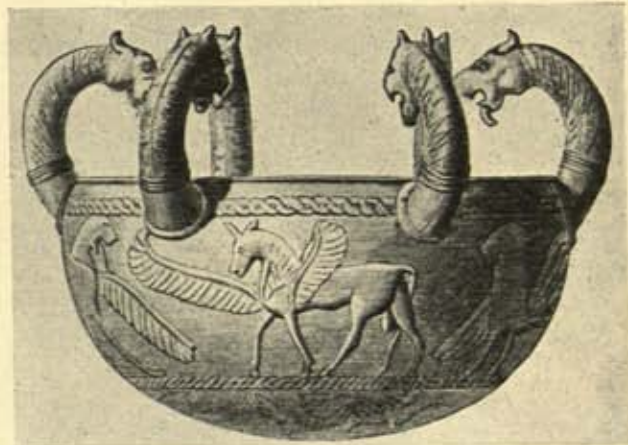


FIG. 6.—BRONZE BOWL FROM ETRURIA.

(2) Somehow, an *ὀδόντων καναχή* occurred, whenever the shield was in use; and if the snakes' heads were prominent, it was easy to make their tongues or lower-jaws loose, to serve as rattles.³⁸ The prophylactic use of rattles and bells needs no further proof than the messenger's

³⁵ Poulsen, fig. 86 = Fröhner, *Collection Tyskiewicz*, pl. xv.

³⁶ Poulsen, fig. 15 = Montelius, pl. 367, 8a.

³⁷ Poulsen, fig. 137 = Montelius, pl. 335, 2. Compare the lion-heads on high necks on similar bowls from the Regulini-Galassi tomb (about 700 B.C.), Montelius, pls. 335-41, cf. 334, 3 and 7a; Randall-MacIver, pl. 37, nos. 87, 89; from Vetulonia, *Not. d. Scavi*, 1913, pp. 431-3; Randall-MacIver, figs. 44-5; gryphon-heads from La Garenne in France, *Olympia Ergebnisse*, IV, 45 = *CAH* pl. I, 352 (A). The twenty-seven knobs on a vessel from the

Reg.-Galassi tomb echo this device; Montelius, pl. 334, 1A, B; cf. Bernardini tomb, Montelius, pls. 367, 4 and 8A.

³⁸ Schwarz, pp. 46, 71, notes *poetam strepitu valde gaudere*, both in the description (ll. 232-3, 242-3, 279, 309, 316) and in the narrative of Herakles' fight (ll. 341-4, 348); yet he thinks it inconsistent that the poet should include sounds in the description of a work of art. But surely this is testimony to the craftsman's skill, as when the confronted monsters *ὠύλαυν δ' ὡσεὶ ζωῶν βροτοί*, on the *Shield of Achilles* (ll. XVIII, 539).

recognition of Rhesus, afar, by the jingling of his equipment,³⁹ among which 'a bronze Gorgon, as from the aegis of the Goddess, bound on the horses' foreheads, clangs terror with many bells.' One heard the sound before one could see how it arose. From the Tomba del Guerriero comes a real shield with clapper-pendants.⁴⁰

THE FIVE ZONES

Beyond the wreath of snakes, which bounds the central composition, medallion, or boss, come the four zones or annular friezes (168-313); and then, as on the 'Shield of Achilles,' a rim (314-15) representing the stream of Ocean; but more elaborate than in the *Iliad*, for it is enhanced with skimming swans (316-17) and with fish (317). But unlike the one long sequence in the *Iliad*, wholly concerned with the Two Cities and their affairs, the subjects of ll. 168-313 are, as already noted, of different categories and values.

Very few of the 'engraved bowls' have more than two principal zones—only *Cesnola* 4555 (unpublished) has four—and when there are as many as three, the innermost has usually been provided at the expense of the central medallion: on the 'Amathus Bowl' this is reduced to a rosette. Conversely, on Idaean shields, where the centre-piece occupies most of the surface, there is usually not room for more than one, though the diameters are much greater than those of the bowls. There was no need for the composer of the *Shield of Herakles* to limit himself in point of size, any more than the constructor of the 'Chest of Kypselos'; but from the large number of subjects, and (still more) of persons, in *Zone IV*, it is certain that the zone was to be very narrow for its length. This accords with the contrast of subjects, between *Zone III*, mainly mythological with few figures, and *Zone IV*, mainly drawn from daily life, and populous; though the battle and the seapiece in *Zone III* approximate to the topics in *Zone IV*, and the *Kêres* and *Achlys* in *Zone IV* are in the same category of symbolic monsters as *Deimos*, *Phobos*, and the *Gorgons* in *Zone III*.

On the other hand, to contain as many figures of animals and centaurs as are indicated, *Zones I* and *II* must have been conceived as relatively narrow; all the narrower, because their radial width is so small. In the whole design they have the same value as the inner zone in both versions of the 'Hunter's Day,' and the innermost zone, a pastoral frieze, on *Cesnola* 4555.

Zone I.

The boars and lions (168-77), variously grouped, form a simple inner zone, of animals only, the mightiest symbols of natural prowess, and a common motive in archaic art. Some are in herds, moving towards each other steadily; but there are also statical items—a great lion prostrate (172), and on either side of him a boar, bleeding and dying, after attack by lions 192-5. Flach bracketed the words from ἀπουράμενοι (173) to κείατο (195) and reduced the description to a single scene—lions destroying boars. But what of the recumbent lion in the middle? I suggest that the advancing herds of lions and boars are interrupted in three places: twice by a group in which a lion (or pair of lions, as so often) pulls down a boar; once by a pair of boars pulling down a lion. That is to say, the sense of ἔκειτο has to be carried forward to ἀμφὶ δὲ κάπροι/δοιοί [ἔκειντο], while the sense of the words κάπροι δοιοί has to be carried back to the assailants of the fallen lion. We may call this a corrupt text, or a condensed description; but among the phrases we may recognise the main elements in a composition which it would have been wearisome as well as difficult to describe in full.⁴¹ Thus the whole zone is broken into three 'kinetic' friezes of moving animals, separated by three 'static' combat-groups.

³⁹ Eur. *Rhesus*, 290 and 307:

Γοργῶ δ' ὡς ἀπ' αἰγίδος θεῆς
χαλκῇ μετώποις ἵππικοις πρόσδετος
πολλοῖσι σὺν κώδωσιν ἐκτύπει φόβον.

Were the 'many bells' suggested by the projecting snakes-

heads of an aegis?

⁴⁰ Montelius, pl. 287, 6A.

⁴¹ The full sense then is as follows: (1) ἡ δὲ γὰρ σφιν ἔκειτο μέγας λῆς, ἀμφὶ δὲ κάπροι δοιοί [attacking him], (2) ἀμφὶ δὲ [on either side of this group ἔκειντο] κάπροι δοιοί . . . τεθνεώτες ὑπὸ . . . λέουσιν [two lions to each boar].

It is a further question how the moving boars and lions were arranged. We have already seen the rhythms of 3, 3×2 , 3×3 , 3×4 appear in the centre-piece, and we shall encounter them again. We have also had to recognise an axial symmetry—top and bottom, left and right—in the whole composition, as in Plate II and Figure 2.

Zone II.

The next lines (178–90) describe a familiar frieze-scene, the combat of Lapiths and Centaurs supporting (ἀμφί 179, 185) their respective leaders, who form *either* an animated central group (συναίγδην ὥσει ζωοί περ ἔόντες) or (as I would suggest) a series of combat-groups, as on the François Vase. The *nine* Lapiths (reckoning Theseus)⁴² suggest a six-fold scheme like that of Zone I, in which alternately two Lapiths attack one Centaur, and two Centaurs attack one Lapith; but if the two Peukaidai are Perimedes and Dryalos, as our text seems to say, there are only *seven* Centaurs.⁴³ We must remember, however, that a Centaur occupied as much space as a horseman, which is usually double that of a foot soldier on the engraved bowls (n. 44 below).

Zone III.

The subjects described in (191–237), between the Lapith-Centaur frieze (178–90) and the 'Tale of Two Cities' (237–313) are independent compositions, of moderate compass, and commensurate though unequal content. As Zone III encircled Zone II, it was conceived as considerably longer; but as it is the only zone which consists of independent groups, and of important figures—Gods, Muses, Gorgons—it was also conceived as broader, and the figures as larger; for the breadth of the zone determines the height of its standing figures, and the circumferential length the maximum number of figures, of proportional width, that it can contain.⁴⁴

At first reading, Zone III may seem to have only five scenes: (1) Ares in his chariot, with Deimos and Phobos; (2) Athena armed and going into battle; (3) a dance of Immortals, with Apollo playing the lyre, and Muses singing; (4) a harbour, with a fisherman on a rock, and dolphins and fishes in open sea; (5) Perseus pursued by the Gorgon sisters.⁴⁵ These subjects are obviously of different lengths as they stand; some of them are 'static', others 'kinetic'; some combine both elements, which we must analyse later.

That these subjects were contemplated as filling a zone which returned into itself, and was surmounted by an upper and therefore outer zone, above the heads of the figures, is indicated in ll. 236–38, where

ἐπὶ δεινοῖσι καρήνοισι
Γοργείοις ἔδονεῖτο μέγας Φόβος· οἱ δ' ὑπὲρ αὐτέων
ἄνδρες μαρνάσθην πολεμήϊα τεύχε' ἔχοντες.

For these men 'above' the Gorgons are among the opening figures of the 'Tale of Two Cities' (237–313), which therefore filled an upper and outer frieze (= Zone IV), and, as we shall

⁴² Schwarz, on literary grounds, discusses the genuineness of the reference to Theseus (182), but regards it as more in place here than in *Il.* I, 265. But Theseus was already in the story for the painter of the François Vase, together with the names of the Hesiodic combatants.

⁴³ On the François Vase (Reinach, *Repertoire*, I, p. 135), Theseus and Antimachos fight *three* Centaurs; Kaineus is overwhelmed by *three*; the Lapith . . . rry . . . fights *two*; Hoplon [= Hopleus *l.* 180] and Dry[as] fight *one* each; and in each team some figures are lost. Of the Centaurs' names, Hasbolos and Petraios are in both lists, and perhaps Arkto (l. 186) is Akrios (FV).

⁴⁴ On the 'Amathus Bowl,' the extant half of the middle zone, $5\frac{1}{2}$ inches long by about 1 inch in radial height, contains ten figures of Egyptian gods, symbols, and votaries, occupying about 18° each. As the circumference measured outside the zone is much greater than measured within it,

the measurements in the text are the circumferences at half height. The outer zone, preserved through 210° (= rather more than half its circumference), is 8 inches long by 1 inch broad, and contains twenty-three figures, an average angular width of 9°; and some of these are horses and chariots, which occupy respectively the width of two standing figures and of three. Thus the outer zone, of the same radial height as the inner, contains at least double the number of items.

On the 'Curium Bowl' (Cesnola 4554) the outer zone is 1 inch in radial height, and contains twenty-two items, sometimes overlapping slightly but occasionally wide-spaced: their average angular width is between 16° and 17°.

⁴⁵ Of these scenes, Apollo and the Muses, Perseus and the Gorgons, with Eris, Phobos, and Ker, occur on the 'Chest of Kypselos' (Paus. *l.c.* xviii, xix).

see, returned into itself at the back wall and postern gate of the 'City at War' which these men are defending. That the poet has completed *Zone III*, when he thus goes up into *Zone IV*, is shown by the 'great Fear' which overshadows the Gorgons; for one of the acolytes of Ares (195) with whom *Zone III* begins, is this same 'Fear,' whom there is no need for us to duplicate; because, if he stood behind the chariot of Ares (while Deimos stood ahead of it ready to join in the battle) he would be next neighbour to the hindmost Gorgon (237), and as he had wings, they could overshadow her.

A small point, as to the arrangement of the scenes, emerges from this statement that *Zone IV* stood above the heads of the Gorgons in *Zone III*—namely, that the figures were set with heads outwards, and therefore with feet inwards towards the centre-piece. This is the regular arrangement on the 'engraved bowls,' which are the works of art most nearly related to the 'Shields' of Herakles and Agamemnon; and I suggest that the poet, however much he may have remembered, of shields seen in palaces or temples, had opportunity also, at feasts, to look into 'engraved bowls' and enjoy their design as well as their contents. This is also the arrangement of the frieze of bulls and lions on the 'Amathus Shield-boss,'⁴⁶ and of the zones of the convex outer surface of the silver cup from Vetulonia⁴⁷, on the silver situla from Praeneste⁴⁸, and similar vessels. Only on conical supports⁴⁹ are the figures set with feet towards the rim, because here the rim is also the standing-base.

On some of the Idaean shields,⁵⁰ though not on all,⁵¹ the figures are set feet inwards on the upper half of a zone, but feet outwards on the lower half, so that as many of them as possible were head uppermost when the shield was in use or hung. In the *Shield of Herakles* there is no positive allusion to this device. In *Zones I* and *II* there is nothing to preclude it, and on an Idaean shield⁵² the change-over occurs where animals in a frieze move apart to right and to left. But the connexion (236–8) between adjacent scenes of *Zones III* and *IV* makes such a change-over quite impracticable. Athena and Deimos enter the same battlefield from adjacent scenes; the wings of Phobos overshadow the last Gorgon; the sea over which Perseus escapes is bounded by the Fisherman's harbour. All these were therefore conceived as standing on the same base-line, feet inwards; because the warriors in *Zone IV* are 'above' the Gorgons, and therefore also feet inwards. The point is of importance, as indicating closer dependence on portable works of art, such as the engraved bowls, than on the Idaean shields; these and similar trophies were dedicated permanently in distant sanctuaries, whereas the bowls travelled widely; moreover they passed from hand to hand, and might be studied from all points of their circumference. A poet's audience had no choice but to follow his presentation of each scene from its proper view-point. It follows from all this, that any scenes which had axial value in this composition stood heads uppermost when the shield was worn, or hung; and therefore stood above the serpent's head, and the hovering Eris. This will enable us to supplement the poet's correlation of this and other points in *Zone III* with points in *Zone IV*, if we can determine the angles subtended by individual figures or by groups, and their relative importance within their zone; and, as we shall see, their interdependence is a feature in which the Shield shows closer affinity to the Idaean shields and other Hellenic work than to the bowls, on which, though there is balance and symmetry within a zone, the incoherence of concentric zones is noteworthy.

Some of these bowls have monotonous friezes of moving animals, without emphasis or segregation into groups, still less into scenes. Some have fourfold symmetry, with an identical or equivalent design in each quadrant, and usually some interspace, because these designs subtended less than 90° each.⁵³ Fivefold schemes are found, either symmetrical, or with

⁴⁶ Formerly in the Cesnola collection, and figured by Colonna Ceccaldi (*Monuments antiques de Chypre &c.* Paris, 1882, pp. 148–50, pl. ix = *Rev. Arch.* XXXI (1876), p. 25), but long since lost; cf. the frieze of bulls on the rim of the bronze krater from Curium (Cesnola 4703 = Perrot, III, figs. 555–6).

⁴⁷ Poulsen, fig. 123.

⁴⁸ Poulsen, fig. 128.

⁴⁹ Poulsen, figs. 129, 131, 134, 141–2.

⁵⁰ E.g., Kunze, pls. 10, 11, 34.

⁵¹ Kunze, pls. 26, 35: on pl. 38 the lines are all feet outwards.

⁵² Kunze, No. 6, pl. 10.

⁵³ Fourfold schemes:—Salerno (Fröhner, *Cat. Coll. Tyskiewicz*, pl. xxiv; Poulsen, fig. 20); Berlin (Cesnola, *Cyprus*, pl. xi; v. Bissing, *Jahrb. d. Inst.* XIII, 35). Bernardini (Montelius,

some amplification of a principal subject with flanking items.⁵⁴ The minor zone of the 'Curium Bowl' has a fivefold scheme, in sections of about 72° and 36°, and some amplification of the principal subject, a lion hunt (70°) flanked by a grazing horse (40°) and a cow with calf (35°)—in all 145° ($72^\circ \times 2 = 144^\circ$). More common, however, is sixfold symmetry, which was easy to design, because the circumference of a circle is so easily divided into sixths (60°), which wasted less space than quadrants on insignificant backgrounds, and could be coupled in major compositions of 120°, or supported by half-sectors of 30°.

It was also easy to enhance by giving axial value to one 60° subject, by annexing to it a pair of 30° subjects, without exceeding what can be appreciated as a whole from a single point of view—namely about one-third of the circumference (120°). Only very rarely does a single scene reach 180° or more, like the siege-scene on the 'Amathus Bowl,'⁵⁵ and there it is interrupted by the walls and towers of this 'City-at-War,' a static 'pilaster' unit of 30° between two scenes of movement. This deserves illustration in detail, for it has direct bearing on the composition of *Zones III* and *IV*.

On the outer zone of the 'Curium Bowl' the axial subject is the Egyptian King slaying enemies, the only instance of this topic except as a central medallion.⁵⁷ He is escorted by a deity (Thoth) in front, and by a soldier behind. Important as this group is (55° or nearly one-sixth of the whole zone), it is supplemented by a flanking pair of combats of man and gryphon (32° and 23°), making 110° in all, or nearly one-third of the whole. The five remaining subjects are as follows from left to right: Isis between 'sacred trees' (58°); similar tree between sphinxes (54°); 'tree' between goats (47°); two erect lions fighting (35°); 'tree' between gryphons (60°). The antiaxial (nadir) point is the 'tree' between goats, centred exactly 180° from the king's headdress. But the craftsman, after working from the king to his right as far as the goats, gave 32° instead of 23° to the left-hand gryphon-slayer, and full 60° to the 'tree' with gryphons; and had therefore to 'starve' the lion group to 35° by omitting its 'tree' altogether. The other 'trees' occupy 20° each, if we neglect those lateral florets of the 'tree' with sphinxes, which lies exactly in the axis of the central medallion, and is thus enhanced for emphasis; as the gryphon-slayer exactly opposite is emphasised (as is noted above) by his greater width, 32° instead of 23°.

Another enhanced sixfold composition is an ill-published bowl from Cyprus in the British Museum,⁵⁸ where three banquet-couches with attendants (80°, 70°, 65°) fill 215°, and are supplemented by a threefold group of attendants (about 50° each instead of 60°).

It is always pleasant to have one's observations confirmed by an unforeseen example. In *BSA XXXVII*, M. René Dussaud has published an engraved bowl in the Louvre, with a scene of goddess-worship like that on Cesnola 4561.⁵⁹ Here, too, the scheme is sexagesimal;

pls. 368, 369, 71A; MacIver, pl. 39 above); Cesnola, 4560 (Cesnola, *Cyprus*, p. 337; Poulsen, fig. 22); Amathus (middle zone; Ceccaldi, pl. viii; Myres, *JHS* LIII, pl. i); Varvakeion (Perrot, III, fig. 550); the lost shield-boss from Amathus had four groups, so far as can be seen from Ceccaldi, pl. ix. On the 'Idalion Bowl' (Cesnola, 4561; Ceccaldi, pl. vii; Perrot, III, fig. 482) the goddess and her table of offerings occupy 90°, the musicians 90°, the dancers 180°; though the axis of the composition is the table of offerings, the goddess is the middle figure in her half of the zone.

⁵⁴ Fivefold schemes:—Cesnola, 4552; *Atlas*, xxxiii, 1; Perrot, III, fig. 546, p. 771. 'Idalion Bowl II' inner zone (Perrot, III, fig. 546); Cesnola, 4553, outer zone (*Atlas*, III, xxxiii, 4); 'Praeneste Bowl' inner zone. (Montelius, pls. 367, 8A, 8B; Poulsen, fig. 15.) The inner zone of Cesnola, 4553, has seven horses. In the 'Curium Bowl' (Cesnola, 4554; Ceccaldi, pl. x 1) a second double-sector (140°) consists of two groups of oxen (each 70°), leaving 75° to be apportioned between two smaller subjects, a lion killing a man (40°) and a recumbent sphinx (35°). As these are too large for 30° sectors in a sexagesimal

scheme, they support the fivefold analysis of the remainder, especially as the flanking subjects of the principal composition vary within similar limits.

⁵⁵ The lost half of the 'Amathus Bowl' probably contained a similar 'City-at-War' from which the assailants issued: compare the 'City-at-Peace' on an unpublished bowl (Cesnola, 4555), where the outgoing and incoming scenes of movement originate at 180° from the mid-line of the 'City,' though corrosion makes it uncertain whence they start. On the 'Hunter's Day' bowl, on the other hand, there is only one 'City.'

⁵⁶ Cesnola, 4554; Ceccaldi, pl. x; Perrot, III, p. 789, fig. 552. The angular measurements have been made on Ceccaldi's plate, to avoid damage to the original, but those I have tested are correct to about one degree.

⁵⁷ Egyptian King as medallion:—Cesnola, 4556; Poulsen, figs. 14 and 20 (and blundered in fig. 14); Montelius, pl. 368; Perrot, III, fig. 546; A. P. Cesnola, *Salamina* (1882), p. 53 (Brit. Mus.).

⁵⁸ There is a poor sketch in A. P. di Cesnola, *Salamina*, p. 83, fig. 53.

⁵⁹ Ceccaldi, pl. vii; Perrot, III, fig. 482.

the goddess with her table of offerings, and the musicians behind her, occupy respectively 60° ; the servitors who confront her, and the dancers who fill the remainder of the zone, occupy respectively 120° . The goddess herself is allowed 30° , and a much-defaced composition, including two crescents which may be capitals of columns, fills also 30° , and stands opposite to her, at 180° . On Cesnola 4561 the corresponding items are: goddess and altar, 60° (with table 90°); three musicians 90° ; six dancers 180° ; a combination of 30° units in a broadly fourfold composition, of which two quadrants are merged and subordinated to the goddess and her attendants. These enhanced axial subjects, however, do not always stand on the axis of the central medallion when this presents a scene with top and bottom; nor are the axial lines of concentric zones usually the same.⁶⁰ Attention is called to this laxity, in contrast with what I hope to show as to the precise geometrical regularity of the Hesiodic *Shield*. An intermediate phase is characteristic of the Idaean Shields, even of those which have only quite simple friezes of animals; the shields with animal-head bosses have inevitably an axis, round which the major design is constructed. It is one of the marks of more methodical composition, in the 'Amathus Bowl,' that one of the major axes of the four-fold inner zone coincides with the middle lines of the 'City at War' in the outer.

In the light of these examples of composition and structure, let us analyse and visualise the components of *Zone III*. There are, in the first place, six single figures: Phobos, Deimos, Athena, Apollo, the Fisherman, Perseus. These are 'statical,' in the sense that they are separate self-contained compositions; though Perseus is flying, and Athena and Deimos are poised for entry into the fight. Between them are six frieze-like groups: Ares in his chariot, the battle-field toward which, like Athena, he and his attendants Deimos and Phobos are moving, the dancing Gods, the singing Muses, the harbour with dolphins and fishes, the pursuing Gorgons. These are all 'kinetic,' in the sense that they are scenes of movement; even the harbour scene has dolphins and fishes sporting in the sea. Each is related to one (at least) (and usually to both) of the 'statical' or 'pilaster' figures which separate it from its neighbours. Two are more intimately related to the single figure between them—the dancing Gods and the single Muses, to right and left of Apollo, who makes their music; and these two scenes are on Olympus, in an ἀγορή which (I suggest) was conceived as indicated by columns or other architectural details (as on Cesnola 4561), binding these two groups into one. If all the nine Muses were represented, and the nine available Gods—for Apollo, Ares, and Athena are figured elsewhere—these two scenes would occupy fully 105° , reckoning 15° for Apollo and 5° for each other figure;⁶¹ but even if less than nine persons were represented on either side of Apollo—six at 5° each, with 15° for Apollo, would give a double-panel of 55° —the Olympian scenes are by far the largest and most imposing subject in *Zone III*. I suggest that the figure of Apollo was axial, and stood at 'XII o'clock' above the snake-head centre-piece; and therefore the other five 'pilaster' figures at II, IV, VI, VIII and X o'clock. Let us allow 15° for each of these six 'pilaster figures,' and see how the other scenes work out at 45° ⁶² each, with their centres at I, III, V, VII, IX and XI o'clock, and an average content, if fully populated, of nine figures of 5° each—quite a good stage-army for the 'battlefield' scene; and it is the full complement of Gods and Muses.

We see at once that the two terrestrial scenes, the battle at IX o'clock and the peaceful harbour at sea at III o'clock—flank and support the double-scene on Olympus, and illustrate Land and Sea, as well as War and Peace. The flying Perseus, with winged sandals, at IV, is

⁶⁰ On the 'Curium Bowl,' the axis of the inner zone is at 70° to the left of the medallion-axis; that of the outer is 50° to the right—i.e., one-third of the circumference (120°) between the two zone-axes. On a bowl from Praeneste, with six snakes' heads upstanding on the rim (Montelius, pl. 367, 8A, 8B; Poulsen, fig. 15), the innermost zone contains seven subjects, but the two adjacent lion-groups combine to form an enhanced axial composition of 90° , antipodal to the victorious lion in the medallion (about 185°) and further emphasised if we take account of the horseman who turns to shoot the nearest of the lions: the

axis of this triple composition is at 165° , and its angular extent 132° ($= 120^\circ + 12^\circ$). On the same bowl, the axis of the inner zone is 45° to the left of the medallion-axis, and about 100° to the left of that of the outer zone.

⁶¹ On the 'Amathus Bowl,' marching foot-soldiers have 5° each and the winged Isis 15° ; on the 'Curium Bowl' (Cesn. *Hdbk.* 4554), Isis, and Ra with outstretched arm, have 15° each.

⁶² $\frac{360^\circ - 90^\circ}{6} = \frac{270^\circ}{6} = 45^\circ$.

balanced by Deimos at VIII, also presumably winged, as his companion Phobos at VI certainly was (236-7).

We now see that the rocks (at I o'clock) on which the Fisherman sits *are* the foot-cliffs of Olympus behind the Muses, and it is off a similar cliff (at X) that Athena, turning away in rear of the dancing Gods, is about to swoop down into the fight (centred at IX), as Deimos does (195) at VIII, preceding the chariot of Ares. This chariot moves at VII towards Deimos and is followed by Phobos (at VI), whose long backward wings should overshadow the hindmost Gorgon (237), as we have seen already.⁶³ As the Gorgons, passing Perseus, are moving from VI towards IV, their movement counterbalances that of Ares in his chariot from VI towards VIII.

As to dimensions, chariots on the 'Amathus Bowl', the 'Caere Bowl,' (Poulsen, fig. 18) and the 'Hunter's Day' are allowed about 30°. But Ares, though a narrow subject, was compensated by the wide wings of Deimos and Phobos: on the 'Amathus Bowl' a four-winged scarabaeus has 30°, and a winged Isis in profile 15°. If Deimos and Phobos were quadrupeds like the Kêres (*v. below*), they would require more than 20° each: the recumbent sphinxes on the innermost zone of the 'Amathus Bowl' have 60°, but the diameter of this zone is very small: a sphinx of the same size, set on one of the pedestals in the next zone, fills only 30°.

All the 'statical' figures in *Zone III* take marginal part in one or both of the scenes which they separate; Deimos and Athena (and more remotely Ares and Phobos)⁶⁵ in the battle-field; Apollo in the dancing and the singing on Olympus; the Fisherman and Perseus in the harbour-scene, for Perseus is always represented making his escape *oversea* from the Gorgons. That the poet saw him high in air is emphatically stated in 217-19, bracketed by Flach as we should expect.

οὐτ' ἄρ' ἐπιψαύων σάκεος ποσὶν οὐθ' ἐκάς αὐτοῦ,
θαῦμα μέγα φράσσασθ', ἐπεὶ οὐδαμῇ ἐστήρικτο.
τὼς γὰρ μιν παλάμαις τεύξε κλυτὸς Ἀμφιγυήεις.

Such was Hephaistos' skill, that Perseus not only flew clear of the lower (as of the upper) margin of the zone, but seemed to have flown clear of the shield altogether, by some rare and vivid trick of draftsmanship. He is, indeed, the only figure in the whole design that is quite 'off the ground.' And we see now why Phobos, behind the pursuing Gorgons, seems to hover above them, though standing on firm earth; his head at least must range with that of Perseus. The Fisherman too, who is seated, has to range with Perseus, and also with Athena beyond the scene in Olympus: so he is perched ἐπ' ἄκταις, on rocks overhanging the harbour. He too does not quite 'touch the shield' with his feet, though they are not far from it—*i.e.*, from the lower margin of the Zone.

Once again Flach has missed the point, and bracketed the significant lines 203-5.⁶⁶ The reason why the rocks are piled high behind the fisherman is not so much to separate him

⁶³ In Plate II, the Gorgons have slipped away from Phobos, and consequently also from their proper relation to the 'City at War' and its defenders.

⁶⁴ But the chariot drawn by a winged sphinx has over 50° (Ashmolean Museum, bowl from Olympia, Poulsen, fig. 12). These regular allowances, which are fractions of 360°, show that even the most elaborate designs were wrought to a geometrical scheme.

⁶⁵ With Athena and Ares here, compare their participation in the battle-section of the 'City at War' in *Il.* XVIII, 516-19, except that there the two gods seem to have stood together dividing the 'fight for the town' from the 'fight for the herds' (520-34): the latter scene is closed (509-15) by the figure-group of Eris, Kydoimos, and Kêr (535-40), as the fighting on the 'Shield of Herakles' is closed by the figure of Deimos, confronting Athena.

But the *Shield of Achilles* has fourfold symmetry, with a

statical centre-piece within each quadrant, making eight frieze-panels in all.

Only rarely, on the bowls, does a composite scene reach 180° or more. On the 'Amathus Bowl' the affairs of the 'City at War' occupy more than all the half-zone which is preserved: but they are divided into scenes of assault and of devastation by the 'City' itself, a pilaster-item of 30°: and probably there was another 'City' in the midst of the lost half-zone, whence the two friezes of assailants issued. Moreover, even within the extant half-zone, there are distinct changes of topic, where the horsemen begin; for cavalry and chariots do not attack a walled town, though they may cover a storming party and devastators.

⁶⁶ Schwarz, p. 52, follows him: *versus 203b-205a respondens esse inter viros doctos constat, from Baumeister onwards. Vir indoctus, I retain and explain them.*

from the Muses, as because the singing and dancing are in Olympus, and this has to be explained:—

θεῶν δ' ἔδος ἄγνός "Ολυμπος
ἐν δ' ἄγορή, περὶ δ' ὄλβος ἀπείριτος ἑσπεφάνωτο
ἀθανάτων ἐν ἄγῳ.

Note that this is the only scene in *Zone III* where the poet indicates accessories; I have already suggested a colonnade for the ἄγορή, like the five lotus-columns behind the dancers on the 'Idalion Bowl';⁶⁷ and for ὄλβος ἀπείριτος, I suggest an altar, tripod, or laden table, as in the sacrificial scene of the 'Hunter's Day,' and on the 'Idalion Bowl' and 'Louvre Bowl.'

These then are the material facts presented in *Zone III*. Let us postpone further analysis of their inter-connexion until we can take account of the scenes in *Zone IV*, respectively adjacent to them; noting only, at this stage, that in an annular zone only about one third of the whole circuit (120°) or one half at most (180°), can be in simultaneous view; but that when such a composition is revolved, each 60° segment in turn becomes axial, and is flanked by its neighbours. This we have already seen to be the advantage which sixfold symmetry has over fourfold. It should confirm what has been suggested for *Zone III*, if *Zone IV* is found to show any structure of this kind.⁶⁸

Zone IV.

What follows in 237–315 is a 'Tale of Two Cities' closely studied from that of the 'Shield of Achilles' (Il. XVIII, 490–606), and of commensurate capacity in figures and scenes: the 'Shield of Achilles' has 36 substantive episodes; *Zone IV* has 29. It is not easy to estimate the number of persons in each scene, nor the allowance to be made for walls, towers, horsemen, and vehicles. But the 'engraved' bowls provide some elementary facts. On the 'Amathus Bowl' the besieged city occupies as much space as four foot-soldiers, or three archers; rather less than two horsemen, or one chariot. The extant portion of the siege scene is about 10 inches long, and contains twenty-three persons, of whom four are horsemen and one drives a chariot; rather less than half-an-inch to each person, on an average: and the zone is one inch high. Such a zone near the rim of a shield 30 inches in diameter would be about 100 inches long, and would carry 230 average figures, on the same ratio between width and height; these, distributed among twenty-nine scenes as above, would give six or seven persons to a scene. If a zone of the same diameter and circumference were two inches high, the number of figures would be halved, and so forth. Rendered in the manner of the siege scene on the 'Amathus Bowl,' the subjects in *Zone IV* contain about sixty figures in Plate II, besides the three 'Cities'; but the outer zone of a full-size shield was far longer than that of a bowl, and relatively narrower and more populous. These are, of course, limiting estimates only. Some of the subjects contain fewer figures—e.g., the Three Fates (258–60), the boxers and wrestlers (301–2), the tripod (312); but others include horses and vehicles (273, 286, 306–9), which on the engraved bowls occupy the space of two and of three standing-figures respectively. As with the Olympians and Muses of *Zone III*, it does not take more than two or three warriors or women to make a pictorial fighting-force, or a procession. On bowls from Caere and Praeneste,⁶⁹ contingents of horse and foot on the march are represented by one horseman and two (or occasionally three) foot-soldiers; on a bowl from the Regulini-Galassi tomb⁷⁰ there are armies of five; on the 'Amathus Bowl,' the city is defended by seven men, and attacked by three ladder-men, four foot-soldiers, three archers, two horsemen and one (extant) chariot: two men guarded by two horsemen devastate a countryside of five trees. This is exceptionally fine work: on the 'Delphi Bowl'⁷¹ there are only four defenders against two ladder-men,

⁶⁷ Cesnola 4561 = Ceccaldi, pl. vii.

⁶⁸ I have given reasons elsewhere (*Who Were the Greeks?*, p. 519) for ascribing fourfold symmetry to the Homeric *Shield of Achilles*.

⁶⁹ Poulsen, figs. 15, 17, 18.

⁷⁰ Montelius, pl. 338.

⁷¹ Poulsen, fig. 11 = Perdrizet, *Fouilles de Delphes*, V, p. 23, pl. xviii–xx. The Chigi vase from Veii (Villa Giulia: seventh century) has 'armies' of four and five warriors, with reinforcements of nine and seven + (damaged): *Ant.*

three archers and one chariot. In the 'Hunter's Day,' on a narrower and longer zone there are, beside the city, 2 (3) mountains, 5 (5) chariots, 6 (5) human figures, 3 (3) monsters, 2 (2) winged deities.⁷²

These calculations are not superfluous; for they test the mental vision of the Hesiodic composer, who is shown thereby to have known very well what a bronze-worker could achieve, within the dimensions of a shield such as a Herakles could use, and such as were to be seen and handled in Greek sanctuaries.

Since we know at what point the description of our 'Tale of Two Cities' begins (237), and above what point in *Zone III* it begins, we may now correlate approximately each episode of it with the adjacent scene in *Zone III*, if we can show that, like *Zone III*, it returned into itself and terminated where the description began.

Fortunately, a clue is given by the 'Shield of Achilles' which begins (*Il.* XVIII, 490) with the 'City at Peace,' a static 'pilaster-group' of walls and towers, and goes on to the marriage scene in front of it (491-5); then comes the scene of litigation (497-508) and then the 'City at War' (509) between that scene and the battlefield and cattle-raid (510-34). Then come other matters, and at last a great dance (590-606), the counterpart of the marriage scene (491-5), closed by a crowd, and the minstrel with his lyre. Now, minstrels in Homer sit when they play, and sit *against something*—a wall, or a column. And whence has this crowd come to watch the dancing? We must infer that what closes this scene is the back gate of the same 'City at Peace,' at the front gate of which the marriage scene begins (491-5).⁷³

Look now in the same way at *Zone IV*. It begins with a battle scene (237-8); the men who are fighting, over the heads of Phobos and the Gorgons, are defending the 'City at War' (238); and Phobos on *Zone III* is at 180° from Apollo on Olympus. It takes the poet a little while to 'get going' on *Zone IV*, for he harks back from the warriors to the women on the towers (242-4) and the elders outside the gates (245-8):⁷⁴ Then he dismisses the battle itself in a phrase, τοι δ' αὖτε μάχην ἔχον (248),⁷⁴ and dilates on the Kêres (249-57), the Fates (257-60), and Achlys, the darkness of death (264-70). As Flach has excised the Fates, we must reserve them for special attention (p. 35).

237-42	THE CITY AT WAR: women on the wall (242).	285	THE CITY AT PEACE (B).
245	Suppliant Elders outside; altar or tripod.	286	ploughing
239	defenders	288	reaping
	corpses	291	sheaves
248	assailants	292	vintage
249	Kêres and corpses: centre-piece.	293	carrying grapes
257-60	Klotho	295-300	winepress in vineyard (293-6)
	Atropos	301-2	Boxers and wrestlers: centre-piece.
	Lachesis	302-4	hare and hounds
264-9	Achlys, recumbent, fills a whole section.		
270	THE CITY AT PEACE (A).	305	horse-race
272	men dancing		
273	bride's car	306-11	chariot races
275	women with torches		
277-8	boys playing syrinx		
280	Girls playing lyre	311	THE CITY AT WAR: tripod and crowd at the back gate of the 'City' in 237-42.
281	boys playing flute		
282	dancers		
283	revellers and flute-player		
285	men riding to the town		

Beyond the grim figure of Achlys we arrive suddenly at the 'City at Peace' (270-1) with its seven gates; then comes a marriage procession (272-7) such as begins the 'Tale of Two Cities' in *Il.* XVIII, 491-3, and then musicians (278-81), dancers, and revellers, some of them

Denkm. II, xlii: CAH (Plates) I, 356 (c). In Stuart-Jones' reconstruction of the 'Chest of Kypselos' based on many vases and bronzes (n. 7 above), the foot-race has five runners overlapping; the battle-piece has ten warriors, overlapping, flanked right and left by two chariots and one horseman.

⁷² The figures in brackets are from the replica, Cesnola 4556. Counting city, chariots, etc., as three human figures, here are forty to forty-five elements, about the same total as

for the 'Amathus Bowl' when entire, but more loosely interspaced with trees.

^{73a} I have discussed this interpretation in detail in *Who were the Greeks?*, Berkeley, 1930, pp. 517-23.

⁷³ Cf. *Il.* XVIII, 514-15 and the silver 'Siege-Vase' from the Fourth Shaft-grave at Mycenae: Bossert, *The Art of Ancient Crete*, 1937, fig. 77.

⁷⁴ Cf. *Il.* XVIII, 516. οἱ δ' ἴσαν ἤρχε δ' ἄρα σφιν Ἀρης καὶ Παλλὰς Ἀθήνη.

riding προπάροιθε πολλῆος (285); for somehow we have arrived again at the City (πᾶσαν πόλιν, 284), another view of which, therefore, separates this composition from what follows—namely, ploughing (286–8), reaping (288–91), gathering and pressing grapes (292–301). For a vineyard, compare the bowl from Praeneste, Montelius pl. 367–8a, b.

Then again a 'static' group of boxers and wrestlers (301–2) separates agriculture from hunting (302–4), horse-racing (305–6), and chariots (306–11).

Finally, the race scene ends with the goal and prize of the chariot-race, μέγας τρίπους ἐντὸς ἀγῶνος (312). But tripods do not stand out in the open country; and to watch the result of a race we expect umpires and a crowd, ἐντὸς ἀγῶνος but *coming from somewhere*; we may conclude that as the tripod is the last item of *Zone IV*, the goal of the race is at the postern of the 'City at War'; and we detect now a counterpart to this victory-tripod, in the altar (or tripod, or what-not) at which the elders hold up their hands in prayer, between the front gate of the 'City at War' and the battlefield (245–8).

Zone IV, then, is a continuous composition, returning into itself, like *Zones I, II, III*, and its axial points are the 'City at War' and the 'City at Peace'; not, however, a single 'City at Peace,' as on the 'Shield of Achilles,' but *two* views of that City, with the marriage, music and dance between them, and the hunting, boxing, and racing between the second 'City at Peace' and the back-wall of the 'City at War.' That is to say, *Zone IV* has the same tripartite rhythm as *Zones I, II, III*—three major friezes of 120° each, if we include one of the three 'Cities' in each of them.

Can we go further to detect subordinate 'pilasters' subdividing the three primary friezes of 'kinetic' events?

To dissect the third segment (286–313) is easy; for a static group (or cluster of groups) of boxers and wrestlers intervenes between the ploughing, reaping, and vintage (286–301), and the hunting, horse race, and chariot race (302–11): each of these friezes or 'kinetic' sections is also itself tripartite.

With this clue, the second segment (272–86) falls apart into (a) marriage procession (272–7 'kinetic'); balanced by (c) dance and revel (282–6) also 'kinetic'; and between these (b) the musicians (278–81) who are subdivided into (α) boys playing syrinx (278), (β) girls playing lyre (280), and (γ) other boys playing flute (281); the girls, or some of them, are also dancing.^{74a} The marriage procession too is threefold; (α) men dancing, (β) the bride's car and escort, (γ) the women bearing torches; then follow the χόροι παίζοντες (277) of the central and counterpart panel, classified as above. The centre (b) has already been dissected. The counterpart procession of dancers (278–81) consists of (α) dancers (282), (β) disorderly revellers with a flute-player (283–4), who are facing about and moving towards the second 'City at Peace,' and (γ) men riding (285–6); though it may be doubted whether these riders or some of them are not literally in front of it (προπάροιθε πόλης); for the 'City,' as we already know from view A (272), had seven gates. A parallel for such foreground to a walled town is the row of conical huts in front of the besieged citadel on the 'Amathus Bowl.'⁷⁵

The first segment (237–269) of warfare and horror, between the 'City at War' and the 'City at Peace A,' is more difficult. Down to 248 all is clear, though oddly arranged, as we have seen already; the City (239), the women on the walls (242–4), the suppliant elders (245–8), the defenders (239), assailants (240) and prostrate bodies (241), then more fighting (248), τοὶ δ' αὖτε μάχην ἔχον.

Then come Κῆρες (249–57), apparently numerous (πᾶσαι 251, cf. 261), drinking the blood of the corpses, and even of the wounded as they fall (κείμενον ἢ πίπτοντα νεούτατον 253).^{75a}

^{74a} Αἱ δ' ὑπὸ φορμύγγων ἀναγον χόρον ἱμερόεντα. So this centre-piece has an axial group between flanking-parties. Note that ἀναγον strictly means 'were leading back,' and that it is at this group of girls that the movement of this segment changes: to the left (let us suppose) the marriage procession moves towards City A; to the right, the revellers beyond the dance πρόσθ' ἔκινον, πᾶσαν δὲ πόλιν. κτλ. (284–5) into City B.

⁷⁵ For men partly within a city gate, compare the Trojan warriors on the François Vase.

^{75a} On the 'Chest of Kypselos,' a Κῆρ, behind Eteokles as he falls (= νεούτατον), ἔσθηκεν δδόντας τε ἔχουσα οὐδὲν ἡμερωτέρους θηρίου, καὶ οἱ καὶ τῶν χειρῶν εἰσιν ἐπικαμπῆς οἱ δολχεῖς: as this figure was inscribed κῆρα, there can be no mistake (Paus. l.c. xix). Eris occurs twice on the Chest, but is merely described as ἀσχεστὴ τὸ εἶδος ἰουαία.

So far, all is in accord with *Iliad* XVIII, 535-40, where a similar struggle-group of Eris, Kyoimios, and Kêr, over the corpses, closes the battle scene by the river (533-4), and separates it statically from the peaceful scenes of ploughing, and reaping (541 ff.): these, on the 'Shield of Herakles,' stand (as we have seen) beyond 'City B' (286). Those same Kêres seem to be also the πᾶσαι of 261-3, and Flach is probably right in bracketing the description of the Three Fates (258-60) as an interpolation, *but only where it stands in our text*. A glimpse of the grouping is given (261-2) for 'all' the Kêres (πᾶσαι 261-2 as in 251) are fighting over one man, and glaring at each other.⁷⁶ This group then is static, like the boxers (301-2) and the musicians (278-281); and it separates the battlefield from—*what?*

If we were to accept Flach's excision of the 'Three Fates' (258-60), all that would be left, between the Kêres (265) and the back wall of the first 'City at Peace' (270), would be the gruesome figure of Achlys, with skinny, hunger-stricken, crouching body, but stout hind-legs,^{76a} 'hands' or fore-legs with long downward claws, and grinning jaws (ἀπλητον σεσαρυία); not a bad sketch of a recumbent sphinx or gryphon. The other details show how closely the poet has studied these monsters. The verdegriis (χλωρή) may have resulted from age and neglect (or was Achlys inlaid in steel, like the earth below the Gorgons (231-2)?); the 'much dust' sprinkled on its shoulders, like the fluff on the head of Thersites,⁷⁷ renders the 'punctuated' (*pointillé*) representation of fur or down on bronze figures;⁷⁸ and the 'tear-drops' with which the creature is 'wet' are the ring-punch marks of the same bronze technique. The dribbling from the nostrils is a misinterpretation of other engraver's details, such as the tongue, wattle, or chin-beard found on some of these creatures.⁷⁹ Finally the 'blood dripping from the cheeks' (267-8) may be similar mis-rendering of the rippled head-dress (like a judge's wig),⁸⁰ which commonly adorns these monsters.

This figure of Achlys, recumbent as its 'stout knees' shows, may have filled the space of three or four normal standing figures, but it is not sufficient for a whole frieze-section of 50-60°.

Now, it is a well-known device, both of Oriental and of archaic Greek art, to fill an unforeseen or unavoidable gap in a frieze-scene with an additional, or symbolic figure, sometimes without apparent regard for relevance.⁸¹ But here, what had to be filled, if the suggested interpretation of the battle-scene and group of Kêres is correct, is not a mere misfit, but a whole segment of *Zone IV* not far short of 60°, or one sixth of the circumference.

It is here that the description of the Three Fates (258-60) seems to belong. Obviously it is not they, who 'all fought fiercely over one man.' They may have been misplaced in our text; but, as counterpart to the battle scene, they are impressive indeed. Men fight and die, for freedom or loot; but when the Kêres have ravaged the corpses of both sides, it is the Three Fates who decide; and after that—Achlys. Maybe a line perished, when the Three Fates were moved to their present place in the text:⁸² their introduction is certainly abrupt, and there is no ἡ δὲ answering to the ἡ μὲν of Atropos. But they certainly were presented as a central group, for Klotho and Lachesis 'stood over'⁸³ something or somebody adjacent, and Atropos, though more eminent and older, was 'rather shorter, no tall goddess,' enthroned, that is, between them, and dumpy, as any figure seems, sitting full-face. As we know that there

⁷⁶ Cf. *Il.* XVIII, 539-40.

^{76a} Χλωρή, ἀσπαρτή, λιμὴ καταπεπηγυῖα, γουνοπαχὴς, μακροὶ δ' ὄνυχες χεῖρεσσιν ὑπῆσαν. 265-6: for γουνοπαχὴς, cf. Perrot, III, figs. 180-1; Kunze, No. 5, pl. 7; No. 20, pl. 31.

⁷⁷ *Il.* II, 219, φεδνὴ δ' ἐπενήσοι λαχύν.

⁷⁸ *Pointillé*:—Poulsen, fig. 86 (Rhodes); fig. 19 (Caere); figs. 77, 78 (Crete); fig. 140 (Barberini); fig. 126 (Capena); fig. 15 (Praeneste); Kunze, No. 86 (Crete).

Ring-punch:—fig. 77 (Crete); fig. 141 (Barberini). Both points and 'drops' recur in the frescoes of the Grotta Campana at Veii. Montelius, pl. 354, 3-6.

⁷⁹ Tongues, Poulsen, figs. 135-6; beard, Kunze, No. 20, pl. 30; a drop falls from the eye on a glazed head in the Esquiline tomb, Montelius, pl. 361, 21.

⁸⁰ *Étaten-peruke*, Poulsen, ch. XI, pp. 137-60, figs. 153-86,

especially fig. 185: compare fig. 29, and 43 from Nimrud, where a line is drawn from eye to lower lip. But an ivory sphinx from Nimrud has a line drawn from the eye across the cheek, Poulsen, fig. 43; for an earlier instance, cf. Bossert, fig. 539a.

⁸¹ An example of excess is a bowl from Caere; Poulsen, fig. 18 = Montelius, pl. 338, 1 and 3 (extra foot soldier). For collocation of allegorical monsters and human scenes, see the sphinxes by the handles of the François Vase.

⁸² I suggest a reference to their management of men's life-threads, as follows:—

263a ἐν δ' ἄρα τρεῖς Μοῖραι, πεπρωμένα χερσὶν ἔχουσαι
the passage will then run:—255-57: 261-3 < 263a >
258-9: 261: 264 ff.

⁸³ σφιν ἐφέτασαν (258).

were several Kêres, it is easy to supply one or more facing outwards from the Kêres group; to confront and balance Achlys; for we have seen that Achlys was recumbent (καταπεπτηνία, 265). There was certainly such a Kêr on the other flank of the group of Kêres crouching to drink blood from the battlefield (252).

The abnormality of this section of *Zone IV* is of the greater interest, because of its intimate acquaintance with the accidents and technical expedients of early toreutic and engraving; as well as with the repertory of Oriental monsters, already exemplified in the figures of Eris, Kydoimos, and Kêr in *Iliad XVIII*, 535-8, and on this 'Shield of Herakles' by Deimos and Phobos in *Zone III*, and by the repetition of *Iliad XVIII*, 535-8 in the centre-piece (156-9). The great vogue of these creatures in Oriental art is from the ninth to the seventh century; but a warrior in Sea-Raider equipment fights with one of them on an ivory mirror-handle from Enkomi in Cyprus which cannot be later than the thirteenth century, and maybe earlier;⁸⁴ and the gryphon at all events goes back into Middle Minoan art, and its prototype in Egypt to the XIIth Dynasty.⁸⁵ They remain familiar to later times: Pausanias had no difficulty in identifying Eris and Phobos on the *Chest of Kypselos*.⁸⁶

INTERDEPENDENCE OF ADJACENT SCENES IN ZONES III AND IV.

From the hint, in l. 257, that the fighting in *Zone IV* began 'over the heads' of the Gorgons in *Zone III*, we may now set each topic in *Zone IV* in relation to the section of *Zone III* immediately beneath it. We shall see, however, that if the poet's geometry was accurate, he did not pass quite vertically upwards from the Gorgons to the fighting-men, but began his description of *Zone IV* immediately beyond the point at which the last Gorgon was overshadowed by the wings of Phobos. And if this amount of divergence is admitted, it is amply justified by the coincidences which are established between adjacent topics of *Zones III* and *IV*. Over Phobos, Ares and Deimos, stand the City at War, the battle-scene, and the Kêres among the corpses; over the battlefield, stand the Three Fates, between another Kêr and Achlys; over Athena and over the Fisherman, stand the two frontages of the 'City at Peace'; over Apollo, the Musicians, and over the Gods and Muses, the two scenes of terrestrial dance and revelry. Over the harbour and sea, stand ploughing, reaping, and vintage; over Perseus the statual wrestlers and boxers; finally, over the Gorgons, in violent movement (let us suppose) to the left, are the hunting, horse-race, and chariot-race, which must be moving to the right, because the tripod-goal stands before the back gate of the 'City at War' which (as already seen) is over the head of Phobos. If the fighting men in l. 237 be set literally 'over the heads' of the Gorgons, all these coincidences disappear; the 'City at Peace' indeed comes to stand above Apollo, the Keres and corpses over Phobos, the Fates over Ares, but there is little further relevance. It may be that the poet began with literal superposition of the fighting men 'over the heads' of the Gorgons, and that the slight irregularity of the sequences at the beginning of *Zone IV* is an attempt to readjust, so that the initial episode of *Zone IV* came in its proper relation to the last Gorgon in *Zone III*.

Thus, on the *Shield of Herakles*, viewed as a single composition, Olympus stands central between Land and Sea, War and Peace. Apollo is not only central in Olympus, but axial on the *Shield* as a whole; for while he stands above Eris and the serpent's head, over him stand the musicians between the wedding above the Gods and the revel above the Muses; and the two renderings of the 'City at Peace' are above the cliffs of Olympus itself. Turn the shield half way round (180°) and Phobos, central between Ares in his chariot and the Gorgons pursu-

⁸⁴ B.M. Excav. in Cyprus, 1899, Pl. II, 872: Bossert, No. 491.

⁸⁵ For examples, see Evans, *Palace of Minos*, IV, p. 914, fig. 888, and Index, s.v.; Bossert, No. 491. Since this was written, come Dr. Frankfort's 'Notes on the Cretan Griffin,' *BSA XXXVII*, 106-22, which demonstrate a North Syrian origin for the mature zoological type, and reveal it as a symbol of sudden death, and 'messenger of

the nether world' (p. 121).

⁸⁶ The association of these monsters with scenes of human combat need not surprise us. They are the visual counterpart of the Homeric *θεομαχία*; and on our shield, too (as on that of Achilles), we have Ares and Athena, as well as Deimos, Phobos, and the Kêres, entering a terrestrial battlefield.

ing Perseus—both moving outwards—is antipodal to Apollo, and likewise axial. Above Ares is the battle-scene before the 'City at War'; above Deimos, the group of Kêres and other monsters closing that battle-scene; and above the terrestrial battlefield in *Zone III* are the Three Fates and Achlys. Next turn the *Shield* so that the battle in *Zone III* is uppermost. Both Athena and Deimos belong to it, though Athena comes from Olympus (where all is rich and happy), while Deimos announces Ares in his chariot, with Phobos behind him, antipodal (as we have seen) to Apollo: beyond him the Muses, beyond Phobos the Gorgons. Turn the *Shield* finally so that the Harbour is centre-piece; the Fisherman's net with the cliffs of Olympus behind, balances Perseus' bag (with what a catch in it!) and the pursuing Gorgons are the antithesis of the Muses: 'War and Peace' again! The Fisherman between Mountain and Sea, Gods and little fishes; Perseus between deep sea and the devil, in the shape of the Gorgon sisters. And above Perseus, in *Zone IV*, stand the wrestlers and boxers, between the farm scenes over the harbour, and the hunting and racing above the Gorgons. As their movement must be towards Perseus, the hare-hunters and the horses and chariots must move in the opposite direction, towards the back-gate of the 'City at War' with whose defenders the description of *Zone IV* begins.

Zone V (The Rim).

Outside *Zone IV* comes finally some kind of wave or scroll pattern, ὠκεανὸς πλήθοντι ἑοικώς (314-17), embracing the whole shield, and precluding the alternative that the shield was of the 'Boeotian' shape, with lateral concavities, and breaks in the rim. On the Ocean stream were 'swans on the wing, crying open-mouthed,' and fishes in the water. The birds are familiar in archaic art from the end of the Minoan period onwards.⁸⁷ Like the fishes, which make their unexplained appearance in many contexts of early Greek and Oriental art, swans may have symbolic as well as aesthetic interest.

Enough has been said here, to invite consideration of an alternative to Mr. Cook's suggestion that the occurrence of the same motives on the 'Shield of Herakles' and on Attic and Corinthian vases gives an approximate date for the poem, and reveals the sources of its imagery. If, in many technical points, as well as in its general composition, and in its symbolic repertory, the Hesiodic *Shield* comes so close as has been shown here to the 'engraved bowls' of the seventh century, is not the relationship between the poem and vase-paintings really the reverse?⁸⁸ A popular poem volitated *per ora virum* as widely, and more rapidly, than any vase, or fashion among vase-painters. So vigorous a description of a fine work of art is more likely to have inspired contemporary vase-painters, than so original a poet to have collected his repertory from painted vases. Nothing was more likely than the demand of customers for 'something out of the *Shield of Herakles*' to set the vase-painters repeating the subject so popularised. And original the poet was, like the poet of *Iliad XVIII*, in applying his skill to immortalise yet another aspect of the ἔργα ἀνθρώπων. I suggest therefore that the poem was composed before (but not long before) the date of the vases compared with it by Mr. Cook; and also after (but not long after) the more naturalistic of the engraved bowls, namely the 'Amathus Bowl' and the 'Hunter's Day.'

Lastly, we are now in a position to appreciate both the poet's use of a wealth of expert observation, and also his originality in transcending all known material examples of this kind of composition, and his thoroughly Hellenic handling, which imposed on a great variety of themes architectonic conformity to a geometric and rhythmical scheme. None of the 'en-

⁸⁷ Evans, *Palace of Minos*, Index, s.v. 'Birds.'

⁸⁸ Randall-MacIver's whole sequence is as follows: *Villanovans and Early Etruscans*, Oxford, 1924, pp. 228-30.

Bocchoris reigned in Egypt 744-28: 'Bocchoris'-tomb, Cornets ca. 700.

Regulini-Galassi tomb: Bernardini tomb ('Hunter's Day' bowl) ca. 670.

Polledrara tomb: scarab of Psammetichus I (664-609) ca. 600.

These are 'highest possible' dates for a Greek poem influenced by those engraved bowls, and others from the Sargonid palace (700-650) at Nimrud.

graved bowls' can compare, in this respect, even with the Cretan shields; but none of the Cretan shields attempts anything so complex as the outlay of the Hesiodic *Shield*. Even the François Vase, though the number and variety of its zones are commensurable, does not bring any subject in one zone into significant relation with its neighbours above or below. And the shape alone, of the François Vase, which prevents more than about a third of any zone from being in effective simultaneous view, limits the opportunity for antithesis, comparison, and mutual interpretation, which are offered by the *Shield*, and so fully exploited by its composer. Even the 'Chest of Kypselos,' where each of the three decorated sides was in a single plane, has no such rhythms or harmonies—using those eloquent terms in their literal and specifically Hellenic senses. Working in the supple medium of Greek speech, and free from the technical exigencies of an armourer, or even of an artist in bronze, the poet of the *Shield* not only *exegit monumentum aere perennius*, but has created ἐν νοητῷ τόπῳ an ἰδέα τῆς ἀσπίδος far closer, as we now see, to *reality*, than any votive or military shield that ever was.

J. L. MYRES.

P.S.—I am greatly indebted to Miss Joan M. Laing, a former student of the British School of Archaeology at Athens, for the skill and spirit with which she has interpreted in Plate II the reconstruction proposed in this paper.—J. L. M.

NOTES

An Epigraphical Note-book of Sir Arthur Evans.

Among the papers of the late Sir Arthur Evans was found a note-book, measuring $5\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{4}$ in., bound in red leather and with a metal clasp, comprising 122 pages, inclusive of the inner sides of the cover. Sixteen of these are blank, eight contain notes on Greek coinage and numerals, a list of the Attic tribes, bibliographical references and some mathematical problems, and the remainder bear copies, in Evans' characteristically microscopic handwriting, of a large number of Greek inscriptions, with brief notes added in many cases. All are written in pencil save the mathematical section, which is in ink and appears to be in a different hand. At the request of Mr. E. Thurlow Leeds, Keeper of the Ashmolean Museum, I have examined the copies of inscriptions and find that, with very few exceptions, the originals are in the British Museum. These exceptions are IG i². 929, ll. 1-5 (in Paris), IG iii. 1418, IG ii.² 3765 and CIG 3333 (all three in the Ashmolean Museum). Of the rest 105 appear in the *Collection of Ancient Greek Inscriptions in the British Museum*; 91 of them are Attic, three (Nos. 159, 160, 162) Boeotian, three (Nos. 373, 375, 376) Tenian, five (Nos. 1003, 1012, 1022-4) Anatolian, one (No. 1398) Italian, and two (Nos. 1107, 1123 a) of uncertain provenance. Careful as they are, these copies do not equal in fullness or in accuracy the admirable editions of the texts by E. L. Hicks, C. T. Newton and F. H. Marshall, and thus they do not call for detailed examination here. I may, however, note that in 59, l. 3, where Hicks gives του Σωσθένους ἀργυροῦ(?) . . . , Evans read the last five letters as ΣΦΗΓΟ, which may point to -- υ τοῦ Σωσθένους Φηγο[υτοῦ], that in 112, where Hicks gives Ἀρχαγόρα with the comment 'The reading of the stone is certainly Ἀρχαγόρα, and not Ἀρχαγόρος, as Böckh' (CIG 996), Evans wrote ΑΡΧΑΓΟΡΑ|Σ, noting 'the Σ on the other side of the figs.', and that in 119, where Hicks supposes the ΕΥ at the end of l. 1 to be the opening letters of an incomplete patronymic such as Εὐφρώνων, Εὐφρόνιος or Εὐφρόνιος, the blank space between it and the preceding Θεοφίλος suggests to me rather that we have either a further name in the nominative or an error on the part of the engraver, who began to inscribe the name Εὐφρώ in l. 1 and made a fresh start in the extant Εὐφρώ of l. 2. One of Evans' inscriptions, on a terracotta antefix, is not included in the above-named publication, but in H. B. Walters, *Catalogue of the Terracottas in the British Museum*, C 902 (p. 294), while another is a copy, clearly made from the original altar, of a dedication, 'in the Courtyard of the Museum', published in CIG 4962 (from Osann's *Syllage*, p. 231) among inscriptions of uncertain provenance as 'in lapide ex museo Britannico'. As Evans' copy is unquestionably more correct than that in CIG, I add it here:

ΔΙΙΗΛΙΩΜΕΓΑΛΩΙ
ΖΑΡΑΠΙΔΙΚΑΙΤΟΙΣ
ΣΥΝΝΑΟΙΣΘΕΟΙΣ
Π*ΑΥΡΗΛΙΟΣΔΙΟΣΚΟΡΟΣ
ΑΝΕΘΗΚΕΝ

The altar itself, of which Evans gives a rough sketch, has elaborate mouldings both at the top and at the foot.

The note-book, together with a brief abstract of its contents and a table showing on what page each of the British Museum inscriptions is copied, is now deposited in the Library of the Ashmolean Museum.

MARCUS N. TOD.

Sculptures in the Beany Institute, Canterbury.

137. A marble relief from Adrianople, measuring $9\frac{1}{2} \times 7$. A man reclines on a couch, and a suit of armour is suspended on the wall above him. Opposite him sits a woman performing rites in honour of the dead, and a diminutive boy, probably the child of the deceased,

stands at the extreme right. Two attendants look on from the left.

Professor Pfuhl describes as follows: 'An anathem to some chthonic god or hero, somewhat provincial, in the Attic tradition of the fourth century B.C. Left, a child *en face*; right, before the nude boy, a crater on a veiled tripod. The woman puts some aroma from a small chest in her left hand on an incense-burner roughly indicated on the table—a common type.'

149. A relief from Prusa, Bithynia. Dimension $10\frac{1}{2} \times 9\frac{1}{2}$. From the left, a rider approaches a flaming altar, and a cypress tree on the right has a snake in its branches (Fig. 1).



FIG. 1.—MARBLE RELIEF AT CANTERBURY.

The rider bears striking resemblances to the rider-god of Thrace, as he appears in the 'hunting type' described by Professor G. I. Kazarov in *Antiquity* vol. 12 p. 295; the snake, if this relief is to be compared, is a symbol of the soul, and the monument then points to the practice of the Thracian cult in Asia Minor.

On the other hand, a similar type of scene occurs on the coins of Mostene, in Lydia, described by Dr. A. B. Cook, *Zeus* ii 563; these represent the cult of Ζεύς Αἰθραῖος, and the rider holds a double-headed axe, while the snake is absent. The relief has artistic affinities with both these types, and the snake also suggests Asclepius.

In the absence of an inscription, two explanations are possible: (a) This relief is a votive tablet, connected with a syncretic cult containing elements of the worship of the Thracian rider-god, Asclepius, and Zeus. (b) An apotropaic device, combining a number of religious symbols; this is the explanation given by Franz Cumont, *Revue Archéologique* xii 67-70, 'le chevalier danubien' of reliefs of this type found in Dacia.

155. A terra-cotta, $12\frac{1}{2} \times 10$, used as a wall-ornament or antefix, surmounted by a palmette moulding $2\frac{1}{2}$ high (Fig. 2).

The subject is the dragging of Hector's body round the walls of Troy. In a chariot on the right stands Athene in the guise of Deiphobus; a second, driven by Achilles, draws the fallen Hector. Andromache in an attitude of grief looks out from a window in the wall that forms the background. The technique suggests that the original was a marble sculpture. This work resembles in most respects the relief in Budapest, published in *Arch-epigr. Mitt.* xiii 1890. The version followed is that adopted by the Attic tragedians, e.g., in Euripides' *Andromache* 107-8: καὶ τὸν ἑμὸν μέλει παῖσιν Ἕκτορα, τὸν περὶ τείχη εἴλαυσε διφρεῶν παῖς Ἀλλας

Θένδος, contrary to that of *Iliad* xxii 416 ff., where the body is drawn away from the city, to the ships.

All three reliefs are from the Strangford Collection, and were presented to the Beane Institute in 1844.



FIG. 2.—TERRACOTTA RELIEF AT CANTERBURY.

These objects were described, and the accompanying photographs taken, by kind permission of Mr. H. T. Mead, Librarian and Curator of the Beane Institute.

University College, Southampton.

GODFREY G. COOK.

Review of Professor Thomson's *Oresteia*.—In Mr. Kitto's considerate notice of my *Oresteia* (*JHS.* LX. 110) there are a few points at which Headlam's views are, I think, not quite fairly presented.

Cho. 687–96, assigned by Headlam to Electra. 'Several dramatic points can be made by this change (v. 707, for example, will illustrate how Clytemnestra has been behaving to Electra), but all are points which Aeschylus clearly did not want to make.' The point of the latter passage, which, as Headlam understood it, is that Clytemnestra behaves to Electra as mistress to slave, has already been made at 135 κῶγ' ἄντιδουλος. 'There is no appreciation of the fact that the *Choephori* is not, like the two *Electras*, a study in Electra's personality and environment.' See vol. I, p. 40.

Ag. 532. Kitto quotes Murray in defence of this verse, but, like him, ignores Headlam's concrete objection to it, which is that it interrupts the metaphor (Διὸς μάστιγι . . . καὶ σπέρμα).

Ag. 591 σὺν δὲ πλουτίζεν ἡμέ. 'Heralds don't receive tips, choruses don't share in them, oriental custom is irrelevant.' Headlam cites eight passages from tragedy, including three from this trilogy, to show that the custom was Greek as well as oriental, that heralds (or at least messengers) did receive tips or rewards, and that choruses might share in them. 'The point here is that Clytemnestra has simply no attitude at all to the Herald.' Yet, instead of greeting him, she tells him flatly that she is not going to listen to his message (603) and disappears before he has time to say a word. Is this not an 'attitude'?

GEORGE THOMSON.

Birmingham.

NOTICES OF BOOKS

The Athenian Archon List in the Light of Recent Discoveries. By W. B. DINSMOOR. Pp. xvi + 274.

New York: Columbia University Press, 1939. £1 10s.
'How much,' asked W. W. Tarn, in reviewing (*CR* 46, 1932, 123-4) Professor Dinsmoor's *The Archons of Athens*, 1931, written on the eve of the Agora excavations, 'how much of the labour of the last thirty years will they (the excavations) render useless?' The subject of this review is Dinsmoor's answer.

Ever since Professor Ferguson's pioneer investigation in 1898 and his epoch-making discovery, 'Ferguson's Law' of tribal rotation, which has proved of inestimable value in unravelling the knotted skein of Athenian Hellenistic chronology, 'a clue,' as Dinsmoor says, 'which presents all the fascination of a detective story,' the 'Case of the Missing Archons' has cast its invincible spell on an ever-increasing number of scholars. Dinsmoor, while investigating a purely architectural problem on the entrance to the Acropolis, in 1928 chanced on a new fragment of *IG II²* 649, and succumbed to the lure of this fascinating problem. Beginning with the discovery that Olympiodorus had a two year 'dictatorship' in 294/3 and 293/2, Dinsmoor re-examined thirty years' study on Hellenistic chronology, and in the remarkably short time of three years produced his *magnum opus*, a complete reconstruction of two centuries of history. This monumental work, *Archons*, 1931, the second landmark in the case, appeared at an opportune moment. The evidence collected up to date was carefully sifted and examined and the stage set for the opening of the Agora excavations.

The original investigators numbered two, Ferguson and Johnson; now Hunt the Archon has become, in Dinsmoor's words, 'almost a popular pastime.' On many students this 'prosaic study exerts a fascination not wholly due to the fact that this is a necessary prelude to our knowledge of Athenian history'; for many this absorbing pursuit has become not so much a means to an end as an end in itself. Since 1931 no fewer than ninety-nine articles or books (all listed by Dinsmoor in a comprehensive bibliography which supplements that of *Archons*, 1931) have been written, and Dinsmoor himself scored the century with 'The Tribal Cycles of the Treasurers of Athena' in *Athenian Studies Presented to W. S. Ferguson*, Suppl. I, 1940, *Harv. St. Cl. Ph.*

After a rigidly enforced abstention of almost eight years, broken only once, Dinsmoor again heard the Sirens' song; the time had come, he felt, to make a synthesis of the evidence accumulated in the *actaeteris* of Agora excavations and published mainly by Dow, Meritt, Oliver and Schweigert. A noteworthy feature of this investigation is the friendly rivalry of the detectives working on the case. No sooner does one issue a report than another counters it (usually within a year) with one of his own. Ferguson's *Tribal Cycles*, 1932, followed *Archons*, 1931, and now Pritchett and Meritt's *The Chronology of Hellenistic Athens*, 1940, has followed close on the heels of *Archon List*, 1939.

The scheme of *Archon List* is the same as that of *Archons*, 1931. It begins with a useful table of chronology, it has the same valuable comparative lists of archons (pp. 64 and 91) and the same comprehensive indexes giving access to almost all Hellenistic chronology. The main body of the text is devoted to the archons of the third century, the chief field of conflict, while the remaining hundred pages deal with the much less controversial second century, and finally some notes on the Athenian Calendar, with a summary of the general situation regarding the eight-year and nineteen-year cycles, as altered by the new evidence since 1931. The introduction (pp. 3-19) with its succinct *résumé* of the present state of the problem is admirable.

Of the two hundred archons of the third and second centuries, one hundred and sixty-four were known before the Agora excavations. Of the missing remainder, sixteen new names are now known, which leaves twenty vacancies, and of eleven of these some letters, or at least the number

of letters, are known; so that there are only nine blanks. Kolbe's scepticism and belittling of the importance of tribal rotation as a means of solving the chronological problem ('History cannot be pressed into the Procrustean bed of a system') has been answered, for the Agora inscriptions on the whole confirm the system. 'In not a single vital instance does the tribe designated by the new inscriptions conflict with the tribe which had been tentatively associated with the archonship in question.' But the mere name of an archon is not enough, unless he is dated or his secretary named; now, from 290/89-262 only five archons are dated and all these are at present without secretaries. As Meritt says, 'a named secretary for any one of the dated archons would establish definitely the chronology of the archons of the early third century.'

So in the present state of knowledge anything like a definitive list cannot be looked for, but yet, what strikes one who looks over the comparative tables of archons is not the divergence of dating in rival schemes, but the large measure of agreement among scholars. In his latest list Dinsmoor can claim to have arranged the archons 'without a break in the secretary cycle of the entire third century between 290 and 201 with the exception of that in 246.' This troublesome break, placed by Pritchett and Meritt in 247, has so far defied explanation. Dinsmoor's continuity has been achieved (to cite a few examples) by placing Polyektos in 248/7, a year later than in *Archons*, and by retaining Peithidemos in 270; the followers of Tarn, who gravely questioned the dating of the Chremonidean War in 270/69-263/2 will still not be satisfied. In addition, Dinsmoor now begins the new cycle under Diomedon with Aigeis (IV), where one would expect Antigonis (I) or Erechtheis (III) or, calling on Ferguson's *deus ex machina*, 'the privilege of Aiantis,' Aiantis (XI). Pritchett and Meritt have suggested a new solution to meet 'the strong arguments advanced by Tarn and by Ferguson to the effect that the archon Peithidemos belongs in 267 and not in 270.' They now date Diomedon in 247/6, assign to him a secretary from Erechtheis, move back by one year all the secretaries in Dinsmoor's table as far as 291, and thus allow Peithidemos to fall in the vacant year 267. It is hazardous to venture an opinion as to which scheme is better, especially as some unpublished inscription from the Agora, like Kydenor's second in 1938, may have already disorganised both. At any rate the break before Diomedon in both schemes awaits explanation.

The reader who is familiar with *Archons*, 1931, will find in its slimmer and younger brother the same learning and ingenuity, the same vigour and lucidity in exposition, the same cogency in argument. It has in fact already taken a place near its predecessor on the shelf beside the *Corpus*. Let us hope that when the cycle of Agora excavations is resumed after the break caused by the war, the third volume of 'this great book' will not be long delayed.

J. M. R. CORMACK.

Life and Thought in the Greek and Roman World.

By M. CARY and T. J. HAARHOFF. Pp. x + 348; pl. 12 + 4 maps. London: Methuen, 1940. 8s. 6d.

This book was published in 1940, but has only recently reached the reviewer's hands. It is not a popular work, though it ought to become one; it is a work of wide scholarship, which by rigorous compression and brevity manages to cover the whole ground and to convey a great amount of information; it is extremely interesting, and cannot have been easy to write. The aim of the authors is, by treating Greece and Rome together, to bring out the resemblances between the two civilisations which ultimately merged in the Roman Empire. It was worth doing, and I think is successful, but it has its dangers; the authors do not claim to have paid much attention to the differences, and their basic distinction (Rome practical, Greece theoretical) is only true up to a point; the Greek world was more practical than the reader would, I think, gather. The Roman side is

better done than the Greek; this may be intentional, for the authors rightly claim that, but for the Roman Empire, Greek civilisation could not have helped to form the modern world. But the inventor is surely worth more than the transmitter; and while Rome's own contribution, law, cannot be over-estimated, the link between Graeco-Roman and modern civilisation would, despite Rome, have been broken but for the Church.

A book like this, written without references, is always a difficulty, for others beside the reviewer will probably meet many statements which they cannot locate off-hand, and about more important things than a Greek penny-in-the-slot machine: e.g., references for the statement (p. 206) that Alexandrian surgeons knew and used anaesthetics (meaning much more than a slight stupefaction with myrrh) are badly needed, whether or no they vivisected human beings. There are many references to modern times, often enlightening; but this can be overdone, and the chapter on education is almost a comparison of ancient and modern methods. There is a certain tendency to attribute to the better-known Roman Empire things which originated in the Hellenistic world. Take, e.g., parchment, which (p. 166) Pergamum began to prepare 'in the early centuries of the Christian era.' Parchment was older than Pergamum; but mass production started there at the beginning of the second century B.C., and by the end of that century parchment was the common writing material of most of Asia as far east as Merv. In a book so compressed, exceptions to rules naturally cannot often be given, while mere omissions are neither here nor there; but there are several omissions of the most important item in the matter under discussion. E.g., Greek calendars are discussed (p. 138) without noticing the real Greek achievement, the Seleucid Calendar, which swept Asia; important finds of papyri are listed (p. 177) without mentioning the Chester-Beatty papyri; from Hellenistic works of art (p. 224) the Nike of Samothrace is omitted; girls' education (p. 287) omits the girls' schools in some Ionian cities; one could continue the list. Actual mistakes seem very few. P. 43, Chaeronea did not 'lay the whole of the Greek homeland at Philip's feet'; for 'whole' read 'most of.' P. 44, for Oxius read Jaxartes. P. 49, neither Ptolemies nor Seleucids reserved all higher offices for Greeks; why not say 'generally'? P. 312, χαμαίνουσα does not mean sleeping on the floor. P. 121, 'paper of Alexandria' might mislead the unlearned, among whom I hope the book will find many readers.

W. W. T.

Plato and Parmenides: Parmenides' Way of Truth and Plato's Parmenides translated with Introduction and running Commentary. By F. M. CORNFORD. Pp. xvii + 251. London: Kegan Paul, Trench, Trubner & Co., 1939. 12s. 6d.

In this volume, a further essay in the method which he has made his own, Professor Cornford contributes signally to the study not only of the later Platonism, but also of the Pythagorean and Parmenidean systems. His exposition of the *Way of Truth* leads on directly to his interpretation of the *Parmenides*. In calling the 'second way of untruth' (αὐτὰρ ἔπειτα ἀπὸ τῆς, κτλ.) the 'Way of Seeming,' i.e. of 'mortal belief based on sense experience' he assigns to it a wider significance than the surely obvious verbal parodies of Heraclitus would seem to suggest; this controversial aspect of the passage he practically disregards, while stressing the point that in Parmenides' system τὰ δοκοῦντα are added to the Sphere of τὸ ὄν to complete a whole in which knowledge and sense both have their objects and function. In expounding the earlier part of the *Parmenides* itself, he gives a valuable analysis and discussion of the 'participation' passage in *Phaedo* 100 c. ff. Passing to the intricacies of the Hypotheses, he admits the baffling nature of some passages, but achieves elucidation of the greater part, on the lines of 'a sort of evolution by process of thought,' as the One Entity, once accepted, is invested with successive attributes. Thus the dialogue demonstrates the logical possibility of a manifold and changing world, as distinct from the problem of actual γίγναι. Regarding the stated conclusion as 'only ostensible,' in accord with Plato's usual method, he urges that the work will be found to throw much light on the other later dialogues.

In the detailed discussion Professor Cornford helpfully

points out the frequent occurrence of 'a definition disguised as a deduction' (p. 209); assuming in some cases reference to lost arguments of Zeno, he succeeds on the whole in acquitting Plato of sophistry. On the important question of Neoplatonic interpretations (which he rejects after cogent argument) he strongly deprecates over-emphasis on mystic elements in the experience of Socrates and of Plato, and reduces the phrase ἐπέκεινα τῆς οὐσίας (*Rep.* 509 b) to meaning that the Good, being an end in itself, is in that sense 'beyond' the existence that it explains.

While much of the *Parmenides* remains a field for conjectural interpretation, this commentary will stand as the most constructive and helpful that has so far appeared.

D. T.

The Republic of Plato translated with Introduction and Notes. By F. M. CORNFORD. Pp. xxvii + 356. Oxford: University Press, 1941. 7s. 6d.

This is not merely another translation of the *Republic*; it is another of Professor Cornford's experiments, and has some points of remarkable interest. The division into books is set aside for a fresh arrangement in six 'parts,' subdivided into forty 'chapters' each prefaced by an explanatory note. The actual version is kept close to the length of the original, chiefly by the omission of many of the formal phrases of question and answer, and also by the exclusion of details judged irrelevant for the modern reader (e.g., many of the Homeric instances in the section on education) or irremediably obscure (e.g., the Nuptial Number). The first of those devices, as well as the general policy of recasting into easy and idiomatic English, is vindicated in the preface by contrast with some well-selected passages from earlier translations. The brief introduction gives an outline of Plato's life and development up to the writing of the *Republic*, emphasising the view (in this unqualified form perhaps disputable) that his 'thought, from first to last, was chiefly bent on the question how society could be reshaped so that man might realise the best that is in him.'

The impression left by the book as a whole is that this version, admirable for the purposes of the general reader (for whom it will no doubt at once supersede earlier translations), is equally important to the classical student in its lines of interpretation and comment. The numerous footnotes contain much valuable matter besides the necessary explanations; and passages of special interest are the prefatory paragraphs on the simile of the Line (with the new suggestions of 'thinking' as a rendering for διάνοια and 'imagining' for εἰκασία) and the whole treatment of the myth of Er.

D. T.

Sophocles, Poet and Dramatist. By W. N. BATES. Pp. xiii + 291; pl. 6 + 4 text figs. Philadelphia: University of Pennsylvania Press. London: Humphrey Milford, 1940. 21s. 6d.

It would be pleasant to be able to bestow unstinted praise on a book which is obviously the result of great industry, and which in fact shows a good acquaintance with Sophoclean literature and a wide knowledge of all the facts that are known about the poet and his works. As a collection of material it will certainly be useful to scholars; whether it fulfils its avowed aim of helping 'the large company of American readers who do not read Greek easily' seems to the reviewer more doubtful. The scheme of the book makes for thinness of treatment. For the author has written general introductory chapters about the poet's life and art and lengthy descriptions of the individual plays and of the fragments; the fragments, about which nothing new is said, occupy 120 of the 285 pages. It is chiefly this thinness of treatment which makes the book unsatisfactory, but when the author says that Sophocles 'did not hesitate to use the marvellous or the supernatural where it might be employed to advantage,' he is not only thin but betrays a fundamental misconception of Sophocles' character and thought.

T. B. L. W.

Nature in Greek Poetry. By G. SOUTAR. Pp. xix + 248. London: Humphrey Milford, for St. Andrews University, 1939. 10s. 6d.

This posthumous work is prefaced by a memoir and five charming translations from Anacreon, Pindar, Euripides,

Theocritus and Bion. As might be expected, Dr. Soutar's work is rich in parallels from English poetry which are always apt as parallel or as contrast. There is nothing very new in the book, but the evidence is pleasantly and discerningly and discriminatingly presented. The arrangement is partly by subject and partly by chronology. Thus the chapter headings are Landscape in Homer, Landscape after Homer, Mountains, River and Sea, Some Natural Phenomena (sun, moon, stars, wind, rain, seasons), Miscellaneous (chiefly trees and flowers), The Sentimental, Alexandrian Poetry, The Greek Anthology. A word is needed to explain what is contained in the two chapters labelled The Sentimental. Those chapters deal not with Nature for itself, but Nature as regarded by man, whether he finds in it something God-possessed or something that has sufficient personality to sympathise with his own troubles or rejoice in his own joys. Dr. Soutar is rightly doubtful of the sentimental interpretation of Nature in Homer, even where the evidence seems at first sight to favour it; in the lyric poets, e.g., the Ibycus fragment about Cretan quinces, the question is more doubtful, but in Greek tragedy there is no doubt: all Nature mourns in sympathy with the Aeschylean Prometheus. Greek art is reticent on the whole, though Dr. Soutar might have found parallels had he looked, and at least once, in the time of Aeschylus, a Greek vase painter adorns the Sack of Troy with a withered and drooping palm tree. But the book as a whole is an attractive guide to a fascinating subject.

T. B. L. W.

Wirtschaftsgeschichte des Altertums: Vol. I, Text; Vol. II, Notes and Bibliography. By F. M. HEICHELHEIM. Pp. 1239. Leiden: A. W. Sijthoff, 1938. £4 18s.

To treat the economic history of Antiquity from the Palaeolithic Age to the period of Heraclius is no mean feat, whatever the result; to treat it with the skill shown by Dr. Heichelheim is a very great feat indeed. The economic history of the Ancient World does not now suffer from neglect, either in specialised studies or in general works, but the latter sometimes labour particular aspects of the subject, often of a controversial character, to such a degree as to detract greatly from their value to anyone but the specialist. Of necessity no single individual can speak with first-hand knowledge of every period and aspect of this vast subject. The immense number of detailed works contained in the Bibliography (Volume II) shows the impossibility of such a task. Nevertheless Dr. Heichelheim has set out to demonstrate the essential connexion between the successive periods of antiquity in a way which makes this work of outstanding value for the student of any one stage or aspect of ancient economic history, who wishes to extend his view beyond the limits of his own chosen subject. Naturally a great deal that is controversial must be contained in a work of such dimensions, but the author's own studies of a more specialised character (e.g., *Wirtschaftliche Schwankungen der Zeit von Alexander bis Augustus*) show his skill in the collection and assessment of evidence. A great deal, too, which is obvious to the student of a limited period is here fitted into the general background.

The book is divided into nine long chapters: I, Introduction; II and III, The Palaeolithic and Neolithic Periods; IV, The Ancient East; V, The Early Iron Age Culture of the Mediterranean Region, and its Contacts with the East; VI, The City-States of the Classical Greek Period from Peisistratos to Alexander the Great; VII, The Hellenistic Period and the Roman Republic; VIII, The Roman Empire from Augustus to Diocletian; IX, The Late Period of Antiquity from Diocletian to Heraclius, and the Transition to the Medieval Period. Each chapter is divided into sections covering the main aspects of economic activity. They are naturally simpler and less clearly defined in the Chapters II and III, but for the later periods they are:—(I) Capital and Property; (II) The various branches of economic activity; (A) Commerce: (i) Trade with more Distant Regions, as opposed to (ii) Local Trade; (iii) Banking; (iv) Transport and Communications; (v) War and Robbery as 'Distributing agencies'. (B) Industrial activity; under which Heichelheim groups household manufactures, 'home industries', and capitalistically organised industry, as far as this existed (a point on which

he exercises more moderation than many writers). Note-worthy here is the information on specialisation in trades and commerce, drawn from linguistic evidence. (C) The exploitation of natural resources: Hunting, Fishing, Agriculture, Husbandry, and Market-gardening; Cattle-rearing and Mining. (III) (A) The formation of social classes; (B) The economic administration of the State.

Heichelheim seeks to show that in the Neolithic Age there were present already, in a relatively undeveloped form, some of the chief factors in the social and economic evolution of the succeeding periods. At this stage in human development the peasant agricultural element was formed, which remained so important throughout antiquity. To this period also he ascribes the first appearance of Working Capital, consisting at first of natural commodities and cattle, which developed in the Bronze Age to be of great and even decisive importance in the formation of an organised state. In Heichelheim's opinion Capital was the factor through which the position of a ruling class was established, whose prosperity rested on dependent labour. Thus the formation was made possible of centres of population only indirectly associated with the exploitation of natural resources. This in turn produced the conditions necessary for the establishment of a full-time trading and craftsman class. All such economic activity centred in the royal or noble establishments and in the temples. On such an economic basis, collectivist and capitalistic in character, was constructed the highest culture of the Bronze Age, particularly in Mesopotamia and Egypt.

Heichelheim then passes on to discuss the new developments which characterised the Early Iron Age, laying considerable stress on the economic and social results of the introduction of iron tools and weapons. Some of the new feudal states resulting from the period of invasions and migrations, in as much as they were established on the fringe of oriental lands, were strongly influenced by the economic and social organisation of the older civilisations. Hence the importance of Greece, further removed and more able to resist such influences or assimilate them only so far as was necessary to her own development. Thus scope was given for the development of social and economic Individualism.

From this point he traces the evolution of the economy of the Greek city-state. The introduction of coinage was of outstanding importance for the development and simplification of local and foreign trade, and for the extension of the use of capital. He makes it abundantly clear that the city-state (with isolated exceptions) had neither the power nor the inclination to interfere in such economic matters as the regulation of prices, wages, or even foreign commerce, except in times of crisis and in the case of certain vital imports and exports, or for political ends. But the appearance of a tyranny such as that of Dionysius of Syracuse, with the greatly increased expenditure such a form of government entailed, led to the application of oriental principles of economic exploitation to an Hellenic state.

Such a system could reach full development only when applied to a considerable area. Thus it was developed immensely when the conquest of Alexander opened up the East, where the ancient collectivist economic organisation still survived. In the Hellenistic period, and especially in Egypt, the maximum degree of economic organisation and exploitation was exercised by the state, both directly through monopolies and elaborately organised taxation, and indirectly through the great estates which were the centres of manifold economic activities. Heichelheim deals in great detail with this period, and shows that a considerable degree of prosperity, surpassing that of any other period of antiquity, was thus obtained (as in the period 280-230 B.C.), if the complex economic organisation, with its many inter-state ramifications, was not upset by war or other disturbances. The period following 230 B.C. showed a decline, but possibilities of recovery were already apparent when the intervention of Rome in the East shattered Mediterranean prosperity.

Republican Rome showed no capacity or inclination to shoulder the reorganisation of the regions she had conquered, with results catastrophic in the end to the conquered and to herself. Her policy of destruction (with consequent loss of economic wealth) and remorseless exploitation of the provinces Heichelheim regards as an essential factor in the weakness of the Roman Empire. He then traces the efforts

made in the Imperial Period to counteract the tendency to economic decline and disintegration.

Social problems closely connected with economics receive full consideration; and all the sections enumerated above are treated with a wealth of detail, extending to the lands lying on the periphery of the ancient world.

The bibliography in Volume II is very full, and forms an admirable reference work to all aspects of the subject.

R. J. H.

Greek Tragedy: a Literary Study. By H. D. F. KITTO. Pp. x + 410. London: Methuen, 1939. 15s.

This book is far more worth reading than the tardiness of its review might indicate. It is literary criticism of one of the best kinds, arising, the author explains (p. v), from having to find answers to awkward questions, as why the second and third actors were introduced, why Euripides did not make better plots, and so forth. 'The answers,' he modestly adds, 'may be wrong, but the questions are right.' His qualifications for thus asking and answering may be stated as a ripe knowledge of the texts he would expound, a fresh, ingenious mind and a grasp of the central fact that he is dealing with the work of first-rate craftsmen. It does not follow that his scholarship is never at fault, his ingenuity never misleading and his admiration never ill-directed; but his is a book from which one may get fruitful ideas while disagreeing widely, and it contains many things far from platitudinous with which no one of taste will disagree.

For convenience, Mr. Kitto divides Tragedy into Old, Middle and New, like Comedy, corresponding in the main to the three masters, but not entirely, for part of Sophokles is to be counted as New rather than Middle, viz., *Trach.* and *Phil.* The main difference is, that in Old Tragedy the interest centres around the impact of circumstances on a character which is as a rule merely sketched, nothing being brought out save the one quality which reacts seriously to events, as the sinfulness of Agamemnon. In Middle Tragedy there is the impact of character on character, but more important, the development of the central character's complexities, especially the tragic *ἀσπρία*, which is fully seen only in this type of play; Agamemnon is all *ἀσπρία*, and nothing else about him matters for Aeschylus' purposes, but Oidipus is much more than that. Furthermore, this complex character is of a universal nature; what befalls Oidipus or Kreon befalls, in some sense, humanity in general, given the appropriate circumstances. New Tragedy still takes a deep interest in character, but it is more individual; the Herakles of *Trach.*, for instance, is very far from being a normal human being, and much of the point of the play lies in his very strangeness.

Within this general framework Mr. Kitto fits much excellent analysis of Aeschylus and Sophokles, with most of which the reviewer is in full agreement. Euripides, of course, is not easy to bring under this or any other system, and much space is spent in highly ingenious attempts to explain the anomalies, sometimes to explain away the faults, of that erratic genius. The *Medea*, for instance, is difficult because it is not normal Middle Tragedy (p. 197). Its real central character is not so much the woman Medea as the irrational force embodied in her (p. 199). Hence Euripides is never so absorbed in his characters as Sophokles in his. Mr. Kitto, the reviewer thinks, does not always do the poet justice; for instance, it is rather too much to say (p. 201) that the *Hippolytus* is not a play about the opposition between the hero's and heroine's characters, and Andromache and Hermione (pp. 257 sqq.) have more vitality than the author seems disposed to allow them. To follow him into all the windings of his Euripidean criticism would take far too much space; on one point at least the reviewer is in full agreement, namely that a number of the plays are not Tragedy at all, but melodrama (*Orestes*) or tragi-comedy (*Helena*), while *Phoen.* (pp. 354 sqq.) is a pageant, or, if we like, 'very good cinema' (p. 366).

A list of small points well made by Mr. Kitto, who has a very pretty wit and uses it against the stupid and pretentious, would stretch to pages. To count the errors of himself and the printer is much easier, for they are very few—a false accent on *πόδες*, p. 147, 'Pelop's' for 'Pelops', p. 167, note 1; p. 291, it is Hyllos, not the Chorus, who speaks the last words of *Trach.* But it seems worth while to mention half a dozen unjustifiable statements, apart from the usual mis-

handling of Arist., *Poet.*, 1453a 28, which occurs a time or two. On p. 35 we find a ray of quite fashionable moonshine, the statement that Aesch., *Pers.*, 1, with its *οἰχομένη*, is more 'ominous' than the *βεβηκότων* of Phrynichos. It is not, for both verbs can be used as euphemisms for dying, and therefore both are, or neither is, ill-omened. P. 55, note 2, assures us that Aeschylus' Prometheus was not represented by a lay-figure. *Malim cum Aeschilo errare*; he is of opinion (*PV*, 65, 74) that Hephaistos drives a spike through the figure and has to scramble up and down to get at the various parts of it. P. 282 and elsewhere, there is authority for calling Medea's unhappy rival Glauke, but it is not Euripidean. Pp. 91 and 93, there is nothing in the least matrilineal, which is presumably what 'matriarchal' is meant to mean, about the Erinyes or anybody else in Tragedy. By way of showing what some would regard as my own stubbornness in error, I mention in conclusion that I am perfectly certain that the *Electra* of Sophokles shows the execution of Klytaimestra as just and approved of Heaven, also that Euripides wrote the introductory anapaests of *IA*, the prologue in iambics being by what bungler we please.

H. J. R.

Zeus: A Study in Ancient Religion. Vol. III: Zeus God of the Dark Sky. Parts I and II.

By A. B. COOK. Pp. xxix + 1299; pl. 83 + 929 text figs. Cambridge: University Press, 1940. £8 8s.

Some future historian will perhaps notice, as an interesting sidelight upon the British temperament, that in the year of Dunkirk an Englishman completed and an English university press published the sumptuous work of recondite learning whose title is given above. The present reviewer has more than once expressed disagreement from the theoretical conclusions drawn by the author in the second volume of his immense book; the disagreement remains, and need not be further elaborated, though it does not extend to what appears to be Professor Cook's central proposition (pp. xii sq.), 'that in that development (from worship of a "Zeus-fallen image" to the theology of St. Paul) the cult of the Sky-god was one main factor, leading the minds of men upwards and onwards to ever greater heights till Zeus at his noblest joined hands with the Christian conceptions of Deity.' It seems now more profitable to examine the abiding worth of this mass of learning as a storehouse for future reference and research, first sketching the contents of the bipartite volume under examination.

Beginning in the middle of a chapter started in Vol. II, the author considers Zeus as god of earthquakes. This, being dependent on the hypothesis that Poseidon is a specialised form of Zeus, is bound to stand or fall with that theory; the reviewer considers it unproved and not very likely. In the next section (pp. 30-43) we are on less contentious ground, for the subject is *Zeus and the Clouds*. The facts of cult and poetry are undoubted, and it is for the reader to decide whether Professor Cook is right in calling the original Zeus a rain-making magician (p. 31). Next come twenty-three pages which consider the *Birds* of Aristophanes and uphold the view that Cloud-Cuckoo-Town owes part of its name to the Argive cult of Mt. Kokkygion and its legend. Personifications of clouds in cult and myth take us to p. 103, with a good deal said of Orpheus, Aristophanes again and other interesting matters. On this follows a long disquisition (pp. 103-65) of winds and the various powers, human and divine, of course including Zeus himself, but diverging to speak of the Tritopatores and others, who were supposed to control them. Pp. 165-81 treat of the dew, incidentally confusing Arrhephoroi and Hersephoroi in a way which Deubner has shown to be wrong. Allowing for this, we are left with the supposition, elaborated on pp. 165-88, that the ritual fertilised the ground with the seed of the sky-god and resulted in the birth of Erichthonios. This in turn inevitably leads to a discussion of Hephaistos and Athena, lasting to p. 237 and involving the proposition that the former deity was 'Pelasgian' and resident from of old in Athens, not as a volcanic, but as a sky-god (p. 236), a theory difficult to reconcile with the known distribution of his shrines. A discussion, obviously called for at this point and bristling with controversial matter, of the daughters of Kekrops takes us to p. 261, where a section begins which leaves less room for doubt, since

it treats of the well-known and acknowledged connexion between Zeus and dew and rain. It contains, however, many curious and interesting digressions, going as far afield as divination by sieve and shears (pp. 336 sq.). By p. 338 the author is fairly started on the subject of leaky vessels used in rain-making, and this takes him to Egypt (ritual of Kanobos), Argos (the Danaids) and a variety of rites involving the carrying of water. By what process this ends (p. 451) with a quotation from the pleasant Mr. Lear I leave the reader to discover; it is an interesting task, and anyone who does not encounter on the way information which is new to him may claim to be very erudite indeed. But Zeus on occasion is the rain, *laeto descendit plurimus imbre*, or the rain is somehow his seed, and this leads not only to a discussion of such titles as Ombrios, but to miraculous rains of all sorts, including of course that which begat Perseus. But Zeus Hyetios was worshipped with a rite of ox-driving, and this (p. 563) leads up to a long and elaborate discussion of the Dipolieia (pp. 577-655); the ox seems, at Athens, to have been struck down with an axe, and so the story that Zeus was struck with an axe to allow the birth of Athena next claims attention (pp. 656 sq.). The whole legend Professor Cook would connect with Frazerian kingship (an institution which the reviewer has not so far found in Greece), and therefore looks for and finds traces of a Zeus growing old and, as he says, superannuated (pp. 739-47). The attributes of Athena are next discussed (pp. 747-873), in what the author himself admits to be a digression (p. 873), but the rest of the part comes back to the main channel of investigation, with an account, lasting to p. 942, of Zeus as god of rain once more, Zeus and meteorites and meteorites in general in connexion with classical religion. Then come over thirty pages (943-74) of general conclusions. Pt. II announces itself as containing appendices and an index, and of the former there are three (P, on floating islands, Q, on 'the prompting Eros' and R, on the *tipos yápos*), while the latter is long, elaborate and highly useful. But between them comes (pp. 1066-197) a great assemblage of addenda, formally additional notes to the three volumes, in effect a collection of the most miscellaneous information, all more or less interesting, and of references to literature in several languages.

To the reviewer, and to all who tend to disagree with the theoretical conclusions reached by Professor Cook, this immense power of collecting learned facts and theories and putting them in a form reasonably easy to consult is one of the most welcome features of his work. Let it be granted that everything advanced by his most adverse critics is correct; that not one hypothesis put forward by him is destined to stand. Zeus would still remain a monument not merely *inchoatum*, but *consummatum pro magnitudine dei*. Theories come into and go out of fashion; so vast an assembly of relevant material is made more, not less serviceable by the very temerity of the hypotheses which it is intended to illustrate. Scholarship has now before it not merely a collection, comparable to one of those in Farnell's *Cults*, of passages manifestly and confessedly bearing upon the worship of Zeus and of illustrations of monuments which have to do therewith, but a gathering together of wellnigh everything which might by any possibility be supposed either to tell us what Zeus-worshippers thought and did, or to account for the origins of their god and his service, its continuation and after-effects. For the material is by no means all Greek, but, besides excursions into Italy, Asia Minor, Egypt and so forth, includes many parallels of a kind familiar from Frazer and other anthropologists, also not a few remarks on modern beliefs and practices in classical lands.

The value of all this is enhanced by the precise accuracy with which everything has been set down. Numerous incidental remarks indicate the care which has gone to finding the best reproductions of the many works of art shown in the plates and text-illustrations; vases, being difficult things to reproduce in the flat, are on occasion shown more than once, as in figs. 233 and 234 and plate xxxiv of this volume. It may remain uncertain what the figures (they decorate an amphora in the B. M.) signify, but at least it is pretty clear what they are, and attempts to explain them, if we refuse to accept Professor Cook's, need no longer be misled by doubts of what to explain. It is quite rare, so far as my investigations go, to come across a citation from an ancient author which is not accurate in wording and

taken from a dependable edition, and, since all manner of writers, some very obscure, are drawn upon, and the length of the quotations is often great, this is good testimony to the author's unceasing and minute diligence. An occasional slip in the many translations of these passages in the text (there is, for example, a trifling one on p. 524, cf. the original on p. 523, note 3) is thus furnished with the material for its own correction at the hands of any critical reader. A word of praise is due here to the printers, who have found a beautifully clear type for the foot-notes.

An opponent, therefore, of the author's views on many points may yet sincerely congratulate him on the completion of this vast labour. There are not many things of interest to a student of classical religion which do not in one way or another touch the cult of Zeus or the ideas which attached themselves thereto. Hence in these thousands of pages there are but few, if any, on which such a student will not find something to interest and instruct him; generally he will also come across some remark or suggestion which, if only by rousing his intense disagreement, will set his wits to work at finding a better explanation of phenomena veraciously and fully presented.

H. J. R.

Plato, Selected Passages. Chosen and edited by SIR R. W. LIVINGSTONE. Pp. xxiv + 220. Oxford: University Press, 1940. 2s. 6d.

THESE extracts from Plato, mainly reprinted from Jowett's translations (with occasional borrowings from Professor A. E. Taylor's translation of the *Laos*), aim at giving readers with little or no Greek an approximate idea of Plato and his achievements. The introduction briefly sketches a comprehensive survey of Plato's life-work, and makes very pleasant reading, though scholars are likely to halt at a few minor omissions or inaccuracies. It is not, for instance, explained that the 'lost' tragedies (p. x), according to the extant authorities, from Diog. La., III, 5, to Olympiodorus and the author of the anonymous *Life*, were *burnt* by Plato himself when he became a follower of Socrates. We read too that 'after the death of Socrates' Plato 'left Athens for eleven years' (p. xiv), whereas (*pace* Gomperz and others) it now seems pretty certain that, after a short stay at Megara in 399, Plato sojourned in Athens, where he was busy writing in defence of Socrates, till ca. 390-89 B.C. It was only then that he embarked on his journey to Egypt, Southern Italy, and Sicily, whence he returned home, there to found the Academy, some three years later, at the time of the conclusion of the King's Peace.

Sir Richard is inclined to reconstruct the Theory of the Ideas in accordance rather with modern 'pragmatism' in the vein of William James than with the metaphysical and mystic foundations of Plato's thought. It is, in point of fact, hardly true that the Theory of Knowledge 'in Plato's hands becomes something much more important' (p. xvi)—namely, 'a Theory of Reality' (p. xviii). It was only through 'a Theory of Reality'—viz. through his religious belief in the unchangeable existence of an absolute reality to which man's soul is akin—that Plato came to conceive his theory of knowledge and to base it on the principle of man's contemplation of, and participation in the Ideas. Man can grasp them because—and only because—he is a compound of body and soul, and his soul is made of the same substance as the ideas from whose world it fell to the world of matter. This is abundantly shown by the *Meno*, chronologically the first dialogue (*pace* Dr. Grassi) to give a clear account not of a logical process of intellectual understanding, but of the religious background of the Theory of the Ideas, and to reveal the fundamental unity and identity, in Plato's philosophy, between the theory of knowledge and metaphysics.

This inadequacy in Sir Richard's treatment of the Theory of Ideas is probably due to the fact that he deals with it, and with Plato's philosophy in general, not 'historically,' but 'systematically.' Rather than give a survey of the development of Plato's thought according to the chronology of his writings and the logical interdependence of the problems by which Plato was progressively confronted, he prefers to sketch Plato's philosophy as a whole, without taking into account the changes

and influences which he underwent, or even the necessary distinction between *Dichtung* and *Wahrheit* in Plato's portraits of Socrates, all of which, to judge from the absence of any caveat in the commentary upon the first section of his booklet, Sir Richard seems to regard as in the main accurate, from whatever writings of Plato's the various biographical details may be derived.

The same tendency towards unhistorical 'modernisation' is discernible in Sir Richard's shortening of the sections of the dialogues showing typical examples of Socratic cross-examinations (a practice which has unhappily been followed also by Dr. Cornford), and in his treatment of Plato's political theory. Although the *Republic* and the *Laws* are given the lion's share, their author is condemned as the prototype of all modern authoritarianism and totalitarianism. That Plato's aim was to build up a government for the few, no one will contest, nor that his schemes, whatever Plato himself may have thought of their practicability, were bound to fail whenever an attempt was made to apply them within the compass of the ancient State. But, against any too narrow or politically biased interpretation of Plato's political philosophy, it must be emphasised over and over again that Plato's main achievement is the very contrary of that with which he is commonly credited, and for which he is praised or blamed according to personal standards. Plato is neither a forerunner of Nazism nor an apostle of Communism, for his theory is the negation both of totalitarian state-worship and of the dictatorship of the proletariat. Whether he aimed or not at the practical realisation of his polity, it actually came to be, or at least paved the way for, the State that is not of this world, a conception which is, at the same time, thoroughly Platonic and wholly incompatible with the structures and the existence of the Greek state both of the classical and of the Hellenistic Age.

Sir Richard himself is rightly inclined to regard as Plato's greatest legacy his belief in the supremacy of the soul and the spiritual life (pp. xviii, 41). It is to this end that he has chosen and edited his selections from Plato. The more regrettable is it, therefore, that his booklet should be marred by too many traces of present-day attitudes and party-catchwords which, in the minds of readers who are not supposed to be familiar with Plato, may perhaps obscure the timeless meaning and the intrinsic historical value of the philosopher's message, which this anthology has been compiled to convey.

P. TREVES.

Monumenta Asiae Minoris Antiqua. Vol. VI. Monuments and Documents from Phrygia and Caria. By W. H. BUCKLER and W. M. CALDER. Pp. xxii + 166; 73 plates. Manchester: University Press, 1939. £2.

THOUGH, in these days of paper shortage, it might well be considered sufficient, in reviewing a book such as the above (which in any case must be long since familiar to most scholars), merely to give the title and name the editors, confidently believing that the reader, who bases his expectations on the well-known reputation of this excellent series and the skill of its veteran editors, will not be disappointed, yet one may be allowed to depart from this 'austerity' review, briefly to draw attention to various points that seem of particular interest. This latest volume, embodying the results of several expeditions, based on Afyon Karahisar, undertaken in the spring of 1933 and 1934, as well as contributions by members of the Austrian Archaeological Institute and Prof. L. Robert, is one of the richest, covering as it does Herakleia, Apollonia and Tabai in E. Caria, and, in Phrygia, Laodikeia, Kolossai, Tripolis, Attouda, Trapezopolis, Apameia, Akmonia, Diokleia, the Upper Tembris Valley, Synnada and the collection in the museum at Afyon Karahisar.

The scope of the volume is carefully outlined by the editors; it is not a report on the archaeology or topography of these districts (this explains the absence of topographical photographs, one of the features of vol. v), but 'an illustrated record of the monuments, inscribed or sculptured, which we and others happen to have found there.' They are careful to explain that they are

not attempting a local corpus for each district, such as Welles' *Gerasa* (1938), but in effect they go a long way towards this by appending a list (pp. 140-51) of references to publications of texts already copied in the places visited, but not examined by the editors.

Of the total of well over 400 monuments recorded, about fifty are architectural or sculptural fragments, while about 370 are inscriptions, of which nearly two-thirds are new. These are all profusely illustrated in no fewer than seventy-three photographic plates, the excellence of which it would be hard to over-praise. It is a pity, however, that no indication of scale is given, a criticism which applies to the whole *MAMA* series. Very few texts are unsupported by photographic evidence, for, if the editors have no photograph of the actual stone, they can nearly always supply one from one of their neat squeezes. Thanks to this wealth of illustration, the curious reader can indulge in criticism of the texts, as for instance in no. 271, where 'Εκόνη appears on the photograph, while the editors read Εύγνης. The description of the situation and ornamentation of the monuments is exemplary in its succinctness; no relevant detail is omitted, but sometimes one wishes that in some cases the exact situation could be more accurately given; 'Dinar. In a street' will not help future epigraphists to find the stone in question (the reviewer remembers some wild-goose chases for inscriptions 'in a church' in a town where there were at least seventy-three churches); but perhaps, when the work has been done so thoroughly already, no one will ever have occasion to doubt, or any wish to add to, any of the information given by the editors. The commentary is, following the practice of *MAMA*, concise, but ample bibliographical material gives the student the tools to finish the job, if he wishes to pursue any particular subject. The indexes, with their many subdivisions, though not complete, and though still suffering from several false references (the text too, e.g. in nos. 394 and 176, note on l. 4, needs correction), are very serviceable, but fewer subdivisions might help the reader more.

Of the total more than half the inscriptions are, as one would expect, funerary; several of these, however, are of more than usual interest. There are a dozen or so metrical texts, scanning more or less, and some snippets of popular philosophy, e.g. no. 138: ξίς, χαίρε, πορεύσιν, μηδέν μισθόμενος τήν ἰδίαν ἀλογον or no. 306: ἐμὲν τὸν τῶν . . . ζῶν Ὀνήσιμος ἐτεύξα καὶ ἐν στήλαις ἐγράψα: οἱ γὰρ κληρονόμοι τῶν θεσκότων ἀμεινοῦσιν. There is an interesting and unique imprecation formula from Prymnessos, no. 382, with the relative clause in Greek and the principal in Phrygian. The heroism of 'The Orthodox Intoning-lectors' (no. 237) of Apameia deserves a passing notice. Among the most exciting of the Christian inscriptions are nos. 222-35 from Apameia which add some more examples to those already known (*JRS* xvi, 1926, 55-93 and *MAMA* iv, 354-60) of the characteristic Phrygian-Christian formula: ἔσται αὐτῷ πρὸς τὸν Θεόν with variations; Prof. Calder has since discussed this formula in *Anatolian Studies* Buckler 15-26. No. 224 is very important, in that it has the only example known to date in Asia Minor epigraphy of ΙΧΘΥΣ.

Among the Hellenistic texts, of which there is a larger proportion than one might expect, may be noted nos. 68, 154, 164, 173, 65, part of the letter of an Attalid king of the second century B.C. (L. Robert gives some new restorations in *REG* lvi, 1939, 508-9) and 4, a dedication of an *aleipterion* by a certain Olympichos, who may, however, especially in view of the absence of ethnic, be simply a citizen of Laodikeia. There is an important revision of a *senatus consultum* from Tabai, no. 162, embodying the terms on which in 81 B.C. the Senate confirmed the awards granted by Sulla, where the new reading in l. 10, δῖω[ς] for [π]ῶλ[ος], brings final refutation to Mommsen's erroneous interpretation of this document. No. 61, the first epigraphic evidence for the name Trapezopolis, confirms Anderson's identification of the site. Nos. 76 and 82 give the word Ἀνδριάντης, probably games where the prize consisted of a statue of the winner. Mention should be made, too, of the Agdistis dedications, nos. 390-99, found by French excavators at the 'City of Midas,' and now in the museum of Afyon Karahisar; the archaic statue of the goddess, no. 401, reminiscent of the

style of the Hera of Samos, is evidence for the cult in the middle of the sixth century B.C.

The latest volume is among the best of a consistently good series. Though it will appeal specially to epigraphists, others will find pleasure in an examination of the art and symbolism of Phrygian 'doorstones' and the study of the evidence for the social and political activities of Phrygia from Hellenistic and Roman times to Byzantine. The standard of printing and the quality of reproduction in the photographic plates are of the highest. It is with a feeling of nostalgia that one handles such a handsome book, reminding one of the spacious days when sumptuous volumes like this could be published with the generous collaboration of foreign scholars, whether French, Austrian or Turkish. May it not be long before vol. vii of *MAMA* appears, even if it has to be in battle-dress.

J. M. R. CORMACK.

Chios Vineta, or the occupation of Chios by the Turks (1566) and their administration of the island (1566-1912), described in contemporary diplomatic reports and official dispatches. Edited with an Introduction by PHILIP P. ARGENTI, with a preface by Sir STEPHEN GASELEE, K.C.M.G. Pp. cclxxviii + 264; pl. 2. Cambridge: University Press, 1941. 25s.

Bibliography of Chios from Classical Times to 1936. By PHILIP P. ARGENTI, with a preface by J. L. MYRES. Pp. xxx + 836. Oxford: Clarendon Press, 1940. 42s.

To his already long series of studies in the history of the home of his family, Dr. Argenti has added these two volumes, bringing the history of Chios down to modern times, and providing an inclusive bibliography. About half of *Chios Vineta* consists of contemporary narratives and reports, from European archives, which must have required great patience and persistence to transcribe and prepare for publication. They are a pathetic tale of mismanagement and misunderstanding; and though the island found eventual release by incorporation in the Greek kingdom, it now shares its sufferings, only slightly mitigated by the proximity of the Turkish mainland. To these documents

Dr. Argenti has prefixed a valuable and detailed narrative of the historical relations of Chios with Byzantium, Genoa, and the Ottoman Empire, before the Turkish invasion and conquest, and an account of the Turkish administration, the French capitulations, the privileges granted to the island from 1567 to 1694, the administration from 1696 to 1822, civil and ecclesiastical, and the later phases of Turkish rule from 1824 to 1866, and thence onward to 1912. Nothing quite of this kind has been attempted for any of the Greek communities under Ottoman rule, and it illustrates vividly the problems of that regime, and the hopelessness of any accommodation between rulers and subjects; and also the ways in which the lot of the Chiotas was made even harder by western interferences, never wholly disinterested.

The *Bibliography of Chios* is an indispensable aid to any future study of the island, from whatever point of view. It consists of two parts, classified respectively under topics and under authors, with a third division for maps from Buondelmonti's manuscript map, not later than 1422, in the Bibliothèque Nationale to the official map of the Greek General Staff in 1937 (1:50,000). The principal subject-headings, besides general works, are the archaeology, language and literature, political, economic and social history, and the folklore and religion of Chios, before and after 1566, with special sections on ancient cults, on Christianity, and on Islam in the island. In addition to the usual bibliographical details, there is a list of libraries, and even of shelf marks therein, to guide the reader to each book he may require. Dr. Argenti's introduction gives a literary history of Chios, which has always loved books, and been rich in libraries, both monastic and private, though one of the most valuable, the collection of Eustratios Argenti (1687-1755), was destroyed in 1822. Its modern public library is probably the finest local library in the Aegean. Printing as well as teaching have flourished there, and the picture of literary activity at the close of the eighteenth century is impressive, as the background to the personality of its most distinguished scholar, Adamantios Coray. How widely Dr. Argenti has cast his net may be best seen by tracing in the classified section the contributions of some of the more unexpected names in the list of authors, Horace (for example) or George Horton of Indianapolis.

J. L. M.

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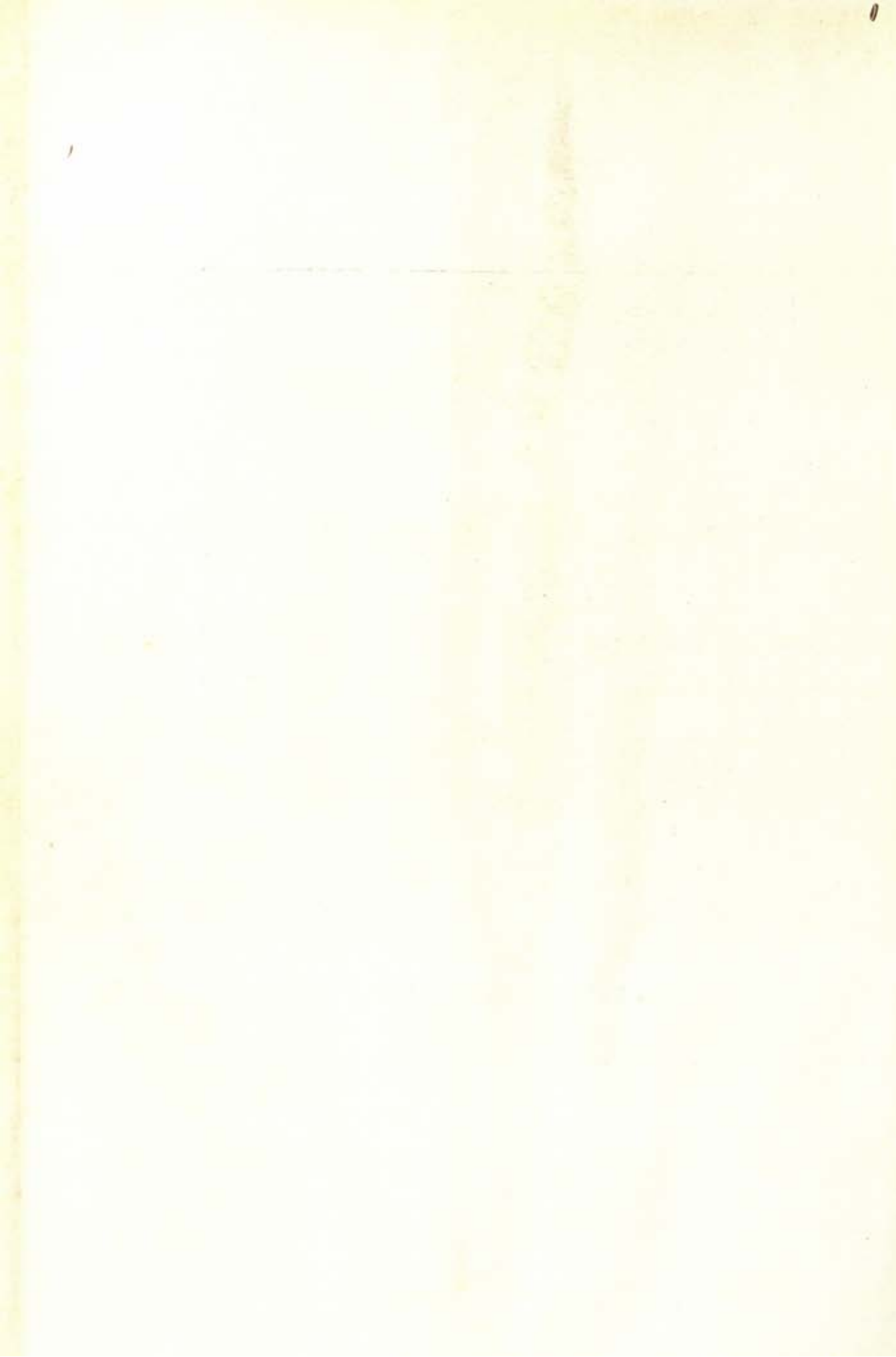
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A NEW METOPE HEAD FROM THE PARTHENON.





HESIOD'S SHIELD OF HERAKLES.
From a drawing made by Miss Joan M. Laing to illustrate the reconstruction proposed in the text.

THE SOCIETY FOR THE PROMOTION OF HELLENIC STUDIES.

50 BEDFORD SQUARE, LONDON, W.C.1.

REPORT FOR THE SESSION 1940-41.

THE Council beg leave to submit their report for the session now concluded:—

Finance.

The Accounts for the year 1940, though more satisfactory than could have been anticipated in view of the unlet upper floors of the Society's premises, are less favourable than they appear. They include on the credit side £180 received for dilapidations, which will be needed as soon as the war is over. On the debit side, the cost of package and postage of the *Journal* could not be included in time for the audit. This item, which will probably amount to about £70, must therefore be carried forward into next year. On the other hand, some £40 spent on repair of war damage should eventually be repaid.

When these items have been taken into consideration, the result is still reassuring, since it shows a small surplus of revenue over expenditure. It should, however, be emphasized that this result has only been obtained by the drastic cutting down of the *Journal*, which must be continued to the end of the war.

The following figures show the membership on June 1st for the last three years:—

	Members.	Life Members.	Student Associates.	Libraries.	Total.
1939	1,008	144	241	328	1,721
1940	994	146	170	340	1,650
1941	921	139	106	280	1,446

Subscriptions have thus dropped by just over 200, but many of those resigning have expressed their intention to rejoin when the war ends. The suspensions come chiefly from Members and Student Associates now serving in H.M. Forces, but the temporary lapse of nearly sixty European Libraries is another misfortune this year.

Against these losses must be very gratefully recorded the work of Prof. Meritt in obtaining thirty-four new and distinguished members for the Society among learned institutions in the United States.

The Council also desire to express their deep gratitude for a very generous gift of \$500 from the Archaeological Institute of America, which

will be of the greatest assistance in re-establishing the Society after the war. This donation, which reached us in January, is not included in the Accounts.

Obituary.

The Council record with regret the deaths this year of Dr. Macan, who was the only surviving original member of the Society, and of Sir James Frazer, one of its most illustrious Vice-Presidents, in addition to the following losses among members during the past session:—Miss E. Beames, *Flying Officer A. W. N. Britton, the Rev. R. J. Burdon, Miss Carthew, Mr. C. J. Davidson, *Pilot Officer W. M. A. Davies, *Mr. E. C. Gardner, the Rev. Prebendary Maynard, Mr. A. S. Owen, Dr. W. Robinson, †Mr. A. W. L. Rose, Mrs. Sachs, Mr. J. C. Stewart.

Premises.

In the frequent explosions and fires to which this neighbourhood was subjected during the past session, the Library and Offices of the Society lost only their skylights and windows, which were blown out on five occasions. The irreplaceable volumes were given generous hospitality in the Hampshire home of Miss Lamb, the collection of negatives in the stone vaults of the London School of Hygiene and Tropical Medicine. A fire-spotting patrol has been organized, of which the Assistant Librarian and the caretakers are members.

Relations with Greece.

At the outbreak of the Italian attack on Greece the President of the Hellenic Society sent the following message to the Greek Government:—

“The members of the Hellenic Society wish to express to the Greek nation their warm admiration of the heroic stand of Greece against the Italian invaders, their deep sympathy for the trial she is undergoing and their ardent prayers for her success. The fate of Greece is the concern of every thinking man.

* Killed in action. † Killed by enemy action.

She represents eternal values in life. To the world she has bequeathed imperishable models in art, literature, thought, action and human character. More than two millennia ago she gave a civilisation to the country which is now attacking her. It is not the first time that Greece has confronted without flinching an invader whose forces outnumbered hers and whose aim was to subjugate her and to crush her liberties and national existence. May the victories of Marathon, Salamis and Plataea be repeated in the twentieth century, and may Greece again bequeath to posterity an example of heroic and successful resistance to oppression and tyranny."

In acknowledging the message General Metaxas replied:—"The noble expression of this most learned society constitutes for us the greatest satisfaction and their support justifies our struggle."

A message of sympathy was also cabled to the Archaeological Society of Athens.

In response to an appeal published in *The Times* by the Presidents of the Hellenic Society and the British School at Athens, a sum of £234 13s. 6d. was collected for the Lord Mayor's Greek Relief Fund.

Administration.

The Council take leave with regret of their retiring President, Sir Richard Livingstone. They have much pleasure in nominating Dr. A. W. Pickard-Cambridge as his successor for the ensuing term of three years.

The following members of Council retire under Rule 19:—Mr. A. Andrewes, Mr. R. D. Barnett, Mr. R. M. Cook, Miss M. Hartley, Lady Nicholson, Mr. C. M. Robertson, Mr. T. C. Skeat, Mr. G. A. D. Tait, Mr. A. M. Woodward.

The Council have nominated for election as members of their body for the next three years:—Miss M. Alford, Mr. R. P. Austin, Miss J. R. Bacon, Mr. C. M. Bowra, Mrs. E. B. Culley, Mr. T. J. Dunbabin, Prof. F. R. Earp, Mr. A. W. Gomme, Mr. A. W. Lawrence, Mr. C. T. Seltman.

The Council have accepted with much regret the resignation of Prof. N. Baynes on account of war duties.

The Council have pleasure in announcing that Miss M. Alford has been elected to the Standing Committee in place of Sir George Hill, who retires by rotation.

The Council thank Mr. C. T. Edge, M.A., A.C.A., for acting as sole Auditor, Mr. W. E. F. Macmillan being absent through illness. They learn with regret of Mr. Macmillan's intention

to resign after long service on their behalf. They have pleasure in nominating Mr. Edge for re-election.

The delay in the publication of Vol. LX of the *Journal* was due to causes arising out of the war, which included the complete destruction of our printers' London premises. Vol. LXI, which it is hoped to issue in a single part about the end of the year, will include the index for volumes XLIII-LX.

Meetings.

The following communications have been made during the session:—

Nov. 5th, 1940. Prof. H. T. Wade-Gery, at the Ashmolean Museum, Oxford, on 'Thucydides as Military Historian.'

Feb. 4th, 1941. Mr. F. Wormald on 'A Byzantine Psalter.'

May 6th, 1941. Prof. A. B. Cook, at the Museum of Classical Archaeology, Cambridge, on 'A new Metope Head from the Parthenon.'

June 24th, 1941. Prof. Gilbert Murray on 'Euripides' Trilogies of 415 B.C.'

The Joint Library.

The following figures show the work done during the last three sessions:—

	1938-9	1939-40	1940-1
Books added	537	377	384
Books borrowed ..	4,453	3,058	1,513
Borrowers	702	551	307

Slide Collections.

Slides added	163	209	104
Slides borrowed ..	5,070	3,146	2,409
Slides sold	493	278	71

The number of books added would have been very much smaller but for the generous donation by Prof. Myres of his collection of Tracts.

The following are among the additions made during the year:—The tenth and concluding part of the Henry Stuart Jones edition of Liddell and Scott's *Greek Lexicon*, the second volume of Delatte's *Anecdota Atheniensia*, the Athenian Academy's 'Ελληνική Βιβλιογραφία for 1800 to 1839, Caclamanos' two-volume publication of Venizelos' rendering of Thucydides into Modern Greek, and the two volumes of Tarnassid's *Estudios Latinos*. Contributions to History include the first part of volume iv in the third edition of Meyer's *Geschichte des Altertums*, Dixon's *The Iberians of Spain*, Wuilleumier's

Tarante, Jones' *The Greek City from Alexander to Justinian*, Walbank's *Philip of Macedon*, Hatzfeld's *Alcibiade*, Scramuzza's *The Emperor Claudius*, Michell's *The Economics of Ancient Greece*, Cochrane's *Christianity and Classical Culture*, Cary and Haarhoff's *Life and Thought in the Greek and Roman World*, Chilver's *Cisalpine Gaul*, Childe's *Prehistoric Communities of the British Isles*. In Archaeology there are the second volume of Ghirshman's *Fouilles de Sialk* and the second Report of the Wellcome-Marston Excavations at Lachish—*The Fosse Temple*. Publications on Art include the ten volumes of Montfaucon's *L'Antiquité expliquée* in the 1719 edition with its five supplements, and the Phaidon Press' fine *Roman Portraits*. Among works on religion are Willoughby and Colwell's two volumes of *The Elizabeth Day McCormick Apocalypse*, and Nilsson's *Greek Popular Religion*. In Numismatics, the fourth volume of Mattingly's *Coins of the Roman Empire in the British Museum*, the second volume of the *Sylloge Nummorum Graecorum*, Bellinger's *The Syrian Tetradrachms of Caracalla and Macrinus* and Newell's *Coinage of the Western Seleucid Mints*. Epigraphy is represented by Dinsmoor's *The Athenian Archon List*.

The following additional periodicals are now taken by the Library:—*Anales del Instituto de Literaturas Clasicas* of Buenos Aires and *Journal of the Courtauld and Warburg Institutes*.

Reciprocal loans arranged with the National Central Library, though small, were again of mutual benefit. The Joint Library lent 24 books during the year and borrowed 27.

The Councils of the Hellenic and Roman

Societies wish to express their thanks for gifts of books from the following:—

Authors: Prof. A. Alföldi, Mr. C. H. Buck, Jr., Mr. G. P. Burstow, M. D. Caclamanos, Prof. M. Cary, Mr. P. Corder, Dr. J. Curle, Dr. C. C. Van Essen, Mr. G. M. A. Haufmann, Mr. F. C. W. Hiley, Miss M. E. Hirst, Dr. A. H. McDonald, Dr. M. Marella, Dr. F. Oswald, Mr. L. J. D. Richardson, Miss K. Shepard, Mr. B. Walker, Dr. A. E. Wilson.

Donors of other books: Dr. W. H. Buckler, Mr. D. B. Harden, Prof. J. L. Myres, Mr. C. A. R. Radford, Miss M. V. Taylor, Mrs. A. D. Ure, and the Editors of the *Durham University Journal*, the *Geographical Magazine*, the *Guardian* and *Religions*.

The Presses of the following Universities: Buenos Aires, Cambridge, Catholic University of America, Harvard, Iowa, Johns Hopkins, Liège, Oxford, Pennsylvania, Yale.

Institutions and Associations: American Numismatic Society, American Philological Association, American School at Athens, Athenian Academy, British Museum, British School at Rome, 'Επιτροπή Ποντιακῶν Μελετῶν, London University Institute of Archaeology, National Museum of Wales, Student Christian Movement.

The two Councils again record their grateful appreciation of the help given by Mrs. Culley in dealing with accessions of books, and by Miss Alford in recording the incoming periodicals.

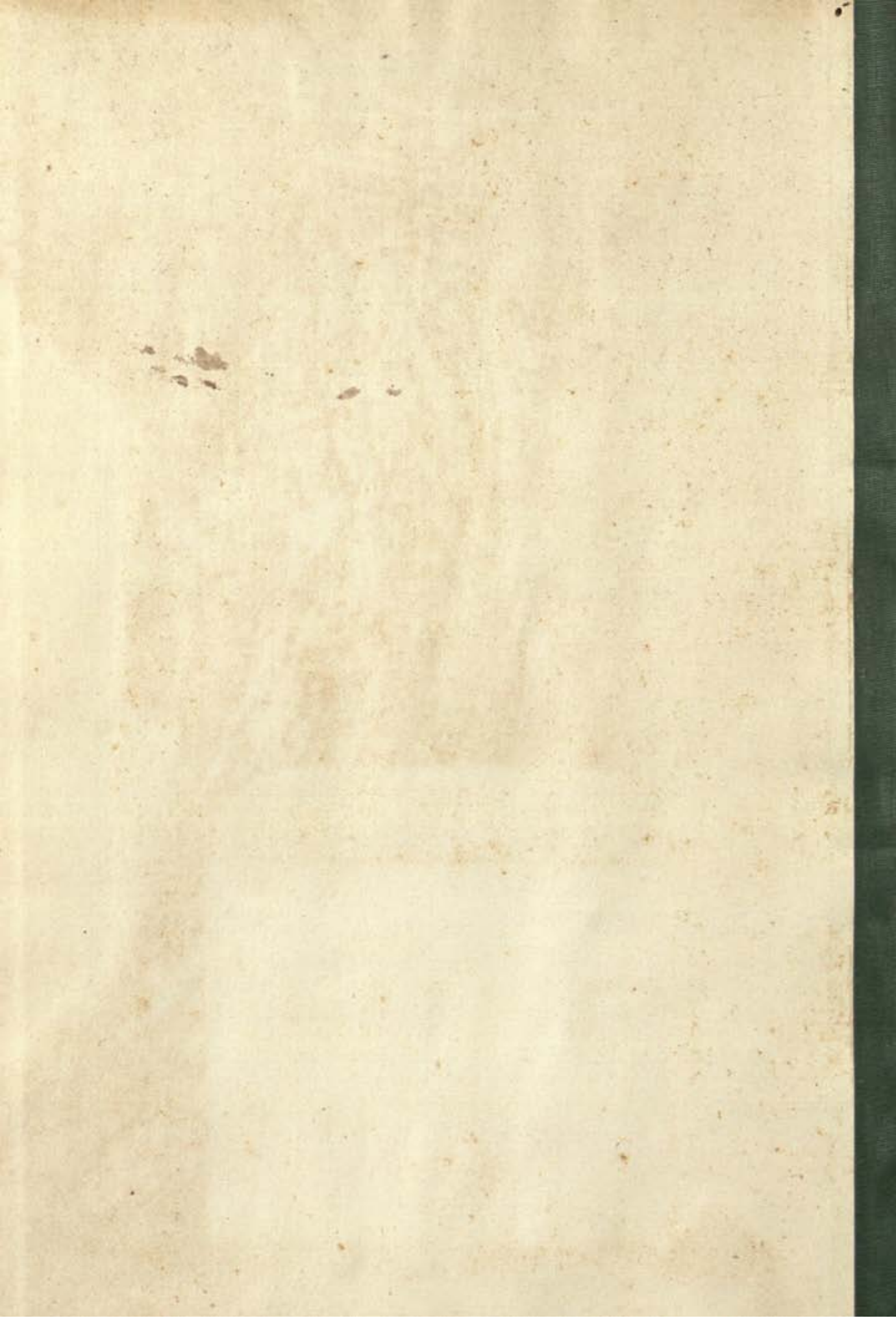
The thanks of the Councils are due to Mr. P. Corder, Miss G. R. Levy, Mr. C. A. R. Radford and Mr. E. G. Turner for gifts to the photographic department.

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INCOME AND EXPENDITURE ACCOUNT. From JANUARY 1, 1940, to DECEMBER 31, 1940.

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